AMERICAN INSTITUTE

OF

ELECTRICAL ENGINEERS.

FOUNDED 1884.

HISTORICAL SKETCH OF ITS ORGANIZATION AND WORK.

CATALOGUE OF MEMBERS AND PUBLICATIONS,

December 1st, 1892.

EXECUTIVE OFFICES:

12 West 31st St.,

NEW YORK CITY.

1892.

OFFICERS AND MEMBERS OF THE COUNCIL.

1892-93.

PRESIDENT:

FRANK J. SPRAGUE.
Term expires 1893.

PAST-PRESIDENTS:

DR. NORVIN GREEN, 1884-5-6. EDWARD WESTON, 1888-9.
FRANKLIN L. POPE, 1886-7. PROF. ELIHU THOMSON, 1889-90.
T. COMMERFORD MARTIN, 1887-8. PROF. W. A. ANTHONY, 1890-91.
ALEXANDER GRAHAM BELL, 1891-2.

VICE-PRESIDENTS:

THOMAS D. LOCKWOOD,
Term expires 1893.
CARL HERING,
Term expires 1893.
WILLIAM J. HAMMER,
Term expires 1893.
A. E. KENNELLY,
Term expires 1894.
NIKOLA TESLA,
Term expires 1894
O. T. CROSBY,
Term expires 1894.

MANAGERS:

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Term expires 1893.
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Term expires 1893.
HORATIO A. FOSTER,
Term expires 1893.
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Term expires 1893.
DR. LOUIS BELL,
Term expires 1894.
HERBERT LAWS WEBB,
Term expires 1894.
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Term expires 1894.
JAMES HAMBLET,
Term expires 1894.
CHARLES WIRT,
Term expires 1895.
ANGUS S. HIBBARD,
Term expires, 1895.
DR. MICHAEL I. PUPIN,
Term expires 1895.
CHARLES P. STEINMETZ,
Term expires 1895.

TREASURER:

GEORGE M. PHELPS,
203 Broadway, New York.

SECRETARY:

RALPH W. POPE
12 West 31st St. New York.

Terms expire 1893.

BOARD OF EXAMINERS:

W. B. VANSIZE, Chairman.
GEORGE A. HAMILTON, E. T. BIRDSALL,
C. O. MAILLOUX, EDWARD P. THOMPSON.

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In 1884, the American Institute of Electrical Engineers was organized in New York City, with the following purpose as stated in the rules:

"The objects of the American Institute of Electrical Engineers are to promote the Arts and Sciences connected with the production and utilization of electricity, and the welfare of those employed in these industries; by means of meetings for social intercourse, the reading and discussion of professional papers, and the circulation, by means of publications among its members and associates, of the information thus obtained."

Receiving prompt and hearty support at the outset, it has by more frequent meetings and the gradual acquisition of the best electrical talent in the country, now reached that stage so essential to the success of an engineering society, where no electrical engineer who desires to keep abreast with the times can afford to remain outside of its ranks. Nearly all of the papers which have been read before the Institute since 1886 have been published in most of the electrical journals in America, and some of the more important have appeared abroad. Those published by the Institute, form a most complete history of the whole line of recent electrical development. The discussions of these papers are, however, to be found complete only in the Institute Transactions, which are published monthly.

Extracts from the Rules, of the American Institute of Electrical Engineers, as Amended December 8th, 1885.

MEMBERSHIP.

The Institute shall consist of Members, Honorary Members, and Associates.

Members shall be Electrical Experts, Electricians, or Electrical engineers, possessing such knowledge of the principles of Electrical Science, and such familarity with the practical applications of electricity in its several branches as those branches imply.

Honorary Members shall be recommended by at least ten members or associates, and elected by the unanimous vote of the Council, but shall not be entitled to vote or serve as members of the Council.

Associate Members shall be such persons as are or have been connected with the utilization of electricity, or who by means of study or experimental investigation, are qualifying themselves to become identified with electrical science, and such others to whose admission no objection shall be made by any member of the Council.

Proposals for admission shall be endorsed by at least three members or associates, and referred to the Council, which shall have power to elect to Associate Membership only.

All members and associates shall be equally entitled to the privileges of membership.

Transfers from associate membership to membership may be made by the Council upon application, subject to the approval of a Board of Examiners, which shall have the power from time to time to provide rules to test the qualifications of applicants. Such rules must be approved by the Council. Any person rejected by the Board shall have the right of appeal first to the Council, and finally to any meeting of the Institute.

DUES.

The entrance fee shall be five dollars for each person. The dues of members and associates shall be ten dollars per annum, payable in advance, at the annual meeting; except that new associate members elected, shall pay in advance *pro rata*, from the first of the month of their election until the next annual meeting. Honorary members shall not be liable to fees and dues. Any member or associate may become, by the payment of one hundred dollars at any one time, a life member or associate, and shall not be liable thereafter to annual dues. The dues of members residing in foreign countries—beyond the seas—shall be five dollars per year, but such members shall have no vote for election of members.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.

Historical Sketch of its Organization and Work.

A preliminary meeting of the founders of the American Institute of Electrical Engineers was held in New York City, April 15, 1884, in response to a call which had been very generally circulated and signed by gentlemen of prominence in electrical circles.

The following is an extract from the circular of information regarding the scope of the proposed society:

> An International Electrical Exhibition is to be held in Philadelphia next autumn, to which many of the famous foreign electrical savants, engineers and manufacturers will be visitors; and it would be a lasting disgrace to American electricians if no American National Electrical Society were in existence to receive them with the honors due from their co-laborers of the United States. It is proposed to organize the American Institute of Electrical Engineers, somewhat after the model of the American Civil, Mechanical and Mining Engineers' societies or institutes.

At a subsequent meeting, held May 13, 1884, a permanent organization was effected and the following officers elected:

President,

DR. NORVIN GREEN.

Vice-Presidents,

PROF. A. GRAHAM BELL,	PROF. CHAS. R. CROSS,
THOMAS A. EDISON,	GEORGE A. HAMILTON,
CHARLES H. HASKINS,	FRANK L. POPE.

Managers,

CHARLES F. BRUSH,	WILLIAM H. ECKERT,
STEPHEN D. FIELD,	PROF. ELISHA GRAY,
PROF. EDWIN J. HOUSTON,	M. L. HELLINGS,
FRANK W. JONES,	GEORGE B. PRESCOTT,
W. W. SMITH,	PROF. W. P. TROWBRIDGE,
THEODORE N. VAIL,	EDWARD WESTON.

Treasurer,

ROWLAND R. HAZARD.

Secretary,

NATHANIEL S. KEITH.

By an Act of Congress, approved July 7, 1884, the President of the United States was authorized to appoint a scientific commission which might, in the name of the Government, conduct a National Conference of electricians in Philadelphia in the autumn of that year. The act further provided that the commission thus appointed might invite scientific men, native and foreign, to participate in the Conference, and to determine the general character and scope of its work.

In pursuance of the provisions of the act, President Arthur appointed the following distinguished scientists: Professors Henry A. Rowland, Monroe B. Snyder, George F. Barker, Simon Newcomb, C. F. Brackett, J. Willard Gibbs, Edwin J. Houston, John Trowbridge, F. C. Van Dyck and Charles A. Young, and Mr. R. A. Fisk and Dr. William H. Wahl as members of the United States Electrical Commission.

Invitations were accordingly extended by Prof. George F. Barker, Secretary of this Commission, to a large number of electricians in Europe and America, of whom about one hundred were in attendance at the Conference which assembled September 8 and adjourned September 13, 1884. The proceedings of this Conference, making a pamphlet of 183 pages, were subsequently published by the Government as a public document.

The following is an extract from the minutes of the closing session:

THE PRESIDENT:—The question has been raised as to whether we shall hold any further meetings of this Conference. It seems to me that the occasion for it will almost have passed away. The occasion of the Conference has been the Electrical Exposition of the Franklin Institute and the presence in this city of the members of the British and American Associations, so that altogether we have had a body of distinguished men, such as we could seldom get together. But some have expressed the feeling that there must be something further for the Conference to do. If any member of the Conference has anything to suggest on this point it can be presented now. Is it desired that any further meetings should be held?

PROFESSOR ABBE:—I only express the opinion of a great many here when I say that we all agree to what has been suggested. We need very much a meeting of this kind frequently in order to exchange ideas. I am not an electrician, either professionally or practically, and it hardly becomes me to say what they need, but I can see how lively and how agreeable these meetings are. I very much hope that some means may be taken to call us together occasionally, perhaps by ourselves, perhaps by a committee.

PROFESSOR ROWLAND:—I do not suppose that we could be called together officially, except it be done within a short time. Although the law is very broad under which this meeting of the Conference has been held, we could not construe the law to make this Conference into an electrical society; that would be impossible. If within a short time a meeting is desired, I suppose that it may be called under the present law.

MR. KEITH:—Pertinent to that subject I would like to say a few words. Early last spring, this exhibition being contemplated, and it being desired that the electricians should assemble themselves together in an organized body, some gentlemen in New York issued circulars to various electricians and professional men throughout the country with the stated object of forming a society. Such a society was formed last May, and the proceedings of that meeting were published, and have been circulated to some considerable extent. The membership has risen to 283. This society will meet here in Philadelphia on the 7th, 8th and 9th of October. A number of members of

the Conference are also members of this society. It is called "The American Institute of Electrical Engineers."

I shall take the liberty of sending to members of this Conference copies of the rules and minutes of the meetings held so far, so that they may become informed as to the standing of this society, and if it seems desirable to anyone that is not now a member he will be gladly welcomed into the society. We want to make it a useful institution, and make it large and financially strong as well as intellectually strong; if not financially strong it certainly will not be intellectually, because finances support intelligence.

The Directors of the International Electrical Exhibition, held in Philadelphia in 1884, kindly tendered to the Institute the free use of rooms in the Exhibition Building, which were accepted by Council, and the rooms were opened to members September 2d, and continued until October 11th, during which time they were visited by a great many members of the Institute and by several foreign electricians.

On October 7th and 8th the first meeting of the Institute for the reading and discussion of professional papers was held at the Continental Hotel and the Exhibition Rooms, at which eleven papers were read, and upon invitation of the Franklin Institute the Exhibition was inspected by the members in a body.

The subsequent history of the Institute is well known. After the holding of two or more annual meetings in New York, records of which have been printed in the TRANSACTIONS, the experiment of monthly meetings was begun, in accordance with suggestions made at the annual meeting in May, 1885, by Acting Secretary Martin, followed in May, 1886, by his successor, as will be seen by the following extract from the Secretary's report, submitted to the Institute:

The importance of the various electrical problems which are continually being brought to public notice points to the advisability of holding monthly meetings for the discussion of current topics. There are in New York and vicinity a sufficient number of members to make such meetings successful, especially if those who are capable and have had ample electrical experience will perform their duty in the preparation of suitable papers for presentation on such occasions. I can see no reason why such a gathering might not be held monthly in conjunction with the regular meetings of Council under existing arrangements. It also appears probable that if suitable arrangements were made for reporting the proceedings of these meetings many important electrical papers would be brought before the Institute which are now presented to other societies, although perhaps entirely foreign to their special field. This is largely the result of a popular interest in electrical researches now existing, which we should avail ourselves of to stimulate the growth of the Institute.

With the inauguration of such a policy as I have outlined, your Secretary will feel far better satisfied with his work, and the existence of the Institute will gradually become known, and properly appreciated by those for whose benefit it was founded.

The first of these meetings, which may be said to have awakened new interest in the welfare of the Institute, was held June 8, 1886, in the Mills Building, 15 Broad street, and was preceded by an informal dinner. The meeting was called to order by President Franklin L. Pope, who in announcing the subject of dis-

cussion, "Incandescent Lighting from Central Stations," made the following remark:

> It gives me very much pleasure to see so large an attendance on this occasion, the first of our monthly meetings, and it affords us excellent encouragement as to what we may expect in the future.

In the autumn of the same year (1886) these monthly meetings were resumed and have continued regularly since that time, being omitted during the summer months. These monthly meetings have been held in New York City, for the reason that a sufficient number of members can always be depended upon to prepare and discuss professional papers.

The General Meeting of 1890 was held at Boston, May 21st, the membership in that city and vicinity having become sufficiently large to warrant its success. The occasion will long be remembered by those who were present, and it appears probable that hereafter, by the judicious selection of location, the May meetings of the Institute may be held each year at different cities in the country.

Having become fairly established as the national electrical organization of America, it was deemed proper that the Institute should take active steps towards identifying itself with international work, thereby securing proper recognition for the important researches of Americans, which had hitherto been ignored, simply because no organized body representing this country had participated in the International Congresses of Europe.

Such a Congress was held in Paris in 1889, in connection with the International Exposition. As it was then supposed that a World's Fair would be held in America in 1892, the Council suggested that an International Congress should be convened at that time. With this purpose in view, the following delegates were appointed who attended the Paris Congress:

THOMAS A. EDISON, CARL HERING,
JOSEPH WETZLER, E. WILBUR RICE, JR.,
NIKOLA TESLA.

Their presence at the Congress was recorded in the official proceedings.

In August, 1889, the following committee was appointed by President Elihu Thomson to make preparations for the proposed International Congress in America:

W. A. ANTHONY, C. O. MAILLOUX,
CHAS. R. CROSS, T. C. MARTIN,
G. A. HAMILTON, HENRY MORTON,
CARL HERING, GEORGE M. PHELPS,
C. H. HASKINS, F. L. POPE,
E. J. HOUSTON, R. W. POPE,
T. D. LOCKWOOD, EDWARD WESTON,
S. S. WHEELER.

The postponement of the date of the World's Fair until 1893, and the holding of an International Congress at Frankfort in 1891, rendered it unnecessary to take any further steps in this direction, beyond taking advantage of the coming Frankfort Congress to renew the invitation to hold an International Congress in America.

On December 3, 1889, the Council appointed a Committee of Eleven "to formulate and submit for approval a standard wiring table for lighting and power purposes." This committee submitted a preliminary report which was discussed at the monthly meeting of the Institute, September 16, 1890, when certain amendments were suggested which were embodied in a revised report, submitted November 18, 1890, which was ordered printed, that distant members might be afforded an opportunity to criticize it.

At the meeting of Council, held June 17, 1890, the following resolutions were referred to a meeting of the Institute and came up for action September 16, 1890:

Whereas, It has been the custom in the nomenclature of electrical units to perpetuate the names of men who have contributed most to electrical science; and,

Whereas, In the names thus far adopted the eminent services of Americans have not been recognized; therefore,

Resolved, That in the opinion of the American Institute of Electrical Engineers a just distribution of the honors thus bestowed necessitates a recognition of the splendid contributions to electrical science of one or both of America's great electricians—Benjamin Franklin and Joseph Henry; and,

Resolved, That this Institute will gladly co-operate with other bodies in this country and abroad to secure the general adoption of these names for electrical units; and,

Resolved, That the name of Henry should be given to the practical unit of self-induction, since he was the discoverer and greatest investigator of this phenomenon, and because this unit at present is called a quadrant, which is merely a numerical value and not a suitable name.

Resolved, That this Institute recommend to electrical societies and electrical engineers the general use of the name Henry for the unit of induction as being the quickest and surest way to secure its final adoption.

These resolutions were subsequently amended in accordance with the following suggestion:

MR. F. L. POPE:—It seems to me that the ultimate disposition we ought to make of this matter is to refer it to the International Electrical Conference, with our recommendation that the name "Henry" be given to the practical unit of self-induction and our recommendation of a certain value. It does not seem to me that we can settle this thing all by ourselves. The rest would like at least to be consulted about it. I think if it were referred to them in that way there is very little doubt they could adopt it.

Upon the receipt of an invitation extended by the management of the Frankfort International Congress of 1891 to the American Institute of Electrical Engineers, to take part in its deliberations, the Institute, at the general meeting May 21st, authorized the Chair to appoint five delegates to attend the Congress, and the following delegation was subsequently appointed:

MR. CARL HERING, Chairman,
DR. EDWARD L. NICHOLS, MR. NIKOLA TESLA,
PROF. RICHARD O. HEINRICH, MR. LUDWIG GUTMANN.

In his report to the Council, at its meeting October 27, 1891, Vice-President Carl Hering, Chairman of the Delegation, submitted his official report, which was accepted and ordered printed in the TRANSACTIONS. In this report it is stated that the delegation concluded to bring up two or three matters which had occupied the attention of the Institute, namely:

The adoption of the name "Henry" and a normal value for the resistance of copper, and in addition suggested the adoption of a practical unit of magnetism. These they concluded were the most important questions to be brought up at this Congress. They prepared a short announcement of these propositions (in German) in the name of the American Institute of Electrical Engineers, and had it printed in full in one of the daily programmes, which were distributed among all the members; a place was also assigned to this matter at the second general session, September 10th, as announced on this notice, which appeared two days before.

The substance of the propositions, as announced, was as follows:

1. That the American Institute of Electrical Engineers had adopted the name "Henry" for the name of the practical unit of induction, and that we propose that this Congress formally adopt the name. This was followed by an explanation of the value of this unit, why this name was preferred to the word "quadrant," and why it was named after Prof. Henry.

2. That this Congress ought to adopt a name and value for a practical unit of the intensity of magnetism. To open a discussion we proposed the name "Gauss" and a value of 1,000 lines per square centimeter, or 10.3 absolute units.

3. That it would be desirable to adopt a normal value for the resistance of copper to facilitate relative comparisons for commercial purposes. To this we added that we wished merely to agitate this question here, in order that any preliminary tests to determine such a value may be made between now and the next Congress, so as to facilitate its adoption at that Congress.

4. The announcement closed with an invitation to the members of this Congress, on the part of the American Institute of Electrical Engineers to participate in the next International Congress, to be held under the auspices of this Institute in Chicago, in 1893, (at that time your delegates were not informed that this coming Congress was in the hands of a committee of the World's Fair).

Although these propositions were not adopted, chiefly on account of lack of time, the effect of making them has prepared the way for their adoption at the next Congress. Mr. Hering suggests that the Institute profit by this experience, and that, as the leading American electrical society, it ought to take the lead in the matter of establishing and naming practical magnetic units and other similar international matters, by considering the subject now at their meetings, making propositions, publishing them in domestic and foreign journals, inviting the aid and criticism of foreign electricians and societies, and in this way prepare for

their final settlement at the next Congress. A Congress is hardly the place to start a discussion on such matters; it is the place to finally settle a discussion which should precede it in the societies and journals of the leading nations.

The adjournment of the Frankfort Congress, to meet in Chicago in 1893, was considered as settling the fact that an International Electrical Congress was to be held at that time, and it therefore seemed proper that the Institute should proceed with its preparatory work with this end in view, it having had the advantage of experience in the deliberations of two such bodies, while a large number of its members had also participated in the National Electrical Conference at Philadelphia in 1884, already referred to. The Committee on the International Electrical Congress of 1893 accordingly met October 27th, 1891, upon call of the Secretary of the Institute, and after organizing, appointed additional members and a sub-committee, so that it now stands as follows:

T. Commerford Martin, Chairman,
150 Broadway, New York City.

Ralph W. Pope, Secretary,
12 West 31st St., New York City.

Prof. W. A. Anthony,
Prof. Alex. Graham Bell,
Prof. Francis B. Crocker,
Prof. Charles R. Cross,
Dr. William E. Geyer,
Mr. Ludwig Gutmann,
Mr. George A. Hamilton,
Col. Chas. H. Haskins,
Mr. Carl Hering,
Prof. Edwin J. Houston,
Mr. Thomas D. Lockwood,
Mr. C. O. Mailloux,
Prof. Henry Morton,
Dr. Edward L. Nichols,
Mr. George M. Phelps,
Mr. Franklin L. Pope,
Mr. Nikola Tesla,
Prof. Elihu Thomson,
Mr. Edward Weston,
Dr. Schuyler S. Wheeler,
Mr. A. E. Kennelly.

Sub-Committee on Provisional Programme,

Mr. Carl Hering, Prof. W. A. Anthony,
Mr. A. E. Kennelly.

In addition to the legislative work as outlined, a paper was read before the Institute at its meeting, December 16, 1890, upon "Inductance and Its Proposed Unit the Henry," by Mr. A. E. Kennelly, which was discussed at the following meeting, January 20, 1891, together with the report of the Committee on the Valuation of the Henry, all of which appear in the numbers of the Transactions for January and February, 1891.

Since the above preparations for an International Electrical Congress were undertaken by the Institute, the organization of the World's Electrical Congress in connection with the World's Columbian Exposition has been placed in the hands of the Electrical Congress Committee of the World's Congress Auxiliary, of which Dr. Elisha Gray is Chairman, and the authorities of the Institute are working in harmony with it, as is shown in the following resolution, passed by the Institute's Congress Committee December 16th, 1891, and approved at a special meeting of Council held December 23rd, 1891.

Resolved, That the American Institute of Electrical Engineers, having already taken action during the past three years, by correspondence and otherwise, towards the holding of an International Electrical Congress in connection with the Columbian World's Fair, hereby expresses its desire and intention to co-operate, by all means in its power, with the World's Congress Auxiliary of the World's Columbian Exposition, through its Electrical Congress Committee, in furthering the gathering of such a Congress at Chicago in 1893, and in making it a successful and worthy representation of the best electrical science and practice in all parts of the world.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.

CATALOGUE OF MEMBERS.

DECEMBER 1ST, 1892.

HONORARY MEMBERS.

Name.	Address.	Date of Membership.
FARMER, PROF. MOSES G.	Electrician and Inventor, Eliot, Me.	A April 15, 1884 H.M. Oct. 21, '90
GREEN, DR. NORVIN	(*Past President*). Pres't Western Union Telegraph Co. P. O. Box 3393, 195 Broadway, New York.	A April 15, 1884 M Oct. 21, 1884 H.M. Dec. 3, 1889
KELVIN, *Lord*	LL.D., F. R. S. S. L. and E. The University, Glasgow, Scotland.	H. M. May 17, '92
PREECE, WM. H. *F. R. S.*	Electrician, General Post Office, London, Eng. Residence, Gothic Lodge, Wimbledon.	H.M. Oct. 21, 1884
SIEMENS, DR. WERNER VON,	Berlinerstrasse 36, Charlottenburg, Germany.	H. M. May 17, '92

Total, 5.

MEMBERS.

ACHESON, EDW. G.	President, The Monongahela Electric Light Co., Monongahela City, Pa.	A Jan. 3, 1888 M May 1, 1888
AHEARN, T.	Ahearn & Soper, Electrical Supplies, Ottawa, Ont.	A July 12, 1887 M Sept. 6, 1887
ANTHONY, PROF. W. A.	(*Past President.*) Consult'g Electrician. The Mather Electric Co., Manchester, Conn.	A Dec. 9, 1884 M Jan. 6, 1885
AYER, JAMES I	General Manager, Municipal Electric L. & P. Co., 322 Pine St., St. Louis, Mo.	A May 19, 1891 M April 19, 1892
AYRES, BROWN	Professor of Physics and Electrical Engineering, Tulane University, New Orleans, La.	A Dec 16, 1891 M Mar. 15, 1892
BARBERIE, E. T.	Electrician, Safety Insulated Wire Co., 234 W. 29th St., New York City.	A Jan. 19, 1892 M Oct. 25, 1892
BATCHELOR, CHAS.	Electrical Engineer, 33 West Twenty-fifth St., New York.	A June 8, 1887 M July 12, 1887
BATES, J. H.	Vice President, Moore Electrical Manufacturing Co., 652 Hudson St., New York City.	A Sept. 6, 1887 M Oct. 1, 1889

Name.	Address.	Date of Membership.
BATES, MAURICE E.	Manager, Western Electric Construction Co., 13th and Greenbush Sts., Lafayette, Ind,	A Aug. 6, 1889 M Oct. 1, 1889
BAUER, A. H.	Electrical Engineer, Pullman Palace Car Co., Room 307, Pullman Building, Chicago, Ill.	A Feb. 7, 1890 M Apr. 21, 1891
BAYLES, ROBERT N.	Electrician, The "C & C" Electric Motor Co., 404 Greenwich St., New York.	A Oct. 1, 1889 M May 17, 1892
BAYLY, B.	Surveyor and District Engineer, Western District Colonial Gov't. Cape Town, Cape of Good Hope, Africa.	A Oct. 4, 1887 M Dec. 6, 1887
BELL, PROF. A. GRAHAM	(*Past-President.*) 1336 Nineteenth St., Washington, D. C.	A April 15, 1884 M Oct. 21, 1884
BELL, DR. LOUIS,	(*Manager.*) Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	A May 20, 1890 M June 17, 1890
BENJAMIN, PARK	Electrical Expert and Engineer, 32 Park Place, N. Y. City.	A Dec. 16, 1891 M Feb. 16, 1892
BERNARD, EDGAR G.	Electrical Engineer, E. G. Bernard & Co., Hall Building, Troy, N. Y.	A Jan. 5, 1886 M July 12, 1887
BINNEY, HAROLD	Assistant in the Practice of Patent Law, with Gilbert M. Plympton, 245 Broadway, New York City.	A Sept. 16, 1890 M Dec. 16, 1890
BIRDSALL, E. T. *M. E.*	Electrical Engineer, 18 Broadway, New York.	A June 8, 1887 M Nov. 1, 1887
BISHOP, JAMES DRAPER	Electrical Expert, John A. Roeblings' Sons Co., 345 W. 34th St., New York City.	A Dec. 16, 1891 M Oct. 25, 1892
BLAKE, EDWARD	361 Temple Street, New Haven, Conn.	A May 24, 1887 M Sept. 3, 1889
BLAKE, FRANCIS	Auburndale, Mass.	A Sept. 3, 1889 M Oct. 1, 1889
BLODGETT, GEO. W.	Electrical Engineer B. & A. R. R. and Consulting Electrician, Boston, Mass.	A July 12, 1887 M Sept. 6, 1887
BOSCH, ADAM	Sup't, Fire Alarm Telegraph, Newark, N. J.	A April 15, 1884 M Jan. 6, 1885
BOURNE, FRANK	Electrical Engineer, The Field Engineering Co., 143 Liberty St., New York City.	A April 21, 1891 M Nov. 15, 1892
BOYNTON, EDWARD C. JR.	Electrical Engineer, Newburg, N. Y.	A Aug. 6, 1889 M Nov. 24, 1891
BRADLEY, CHAS. S.	Electrical Engineer, Wayne Hotel, Fort Wayne, Ind.	A May 24, 1887 M Dec. 6, 1887
BROOKS, MORGAN	Secretary and Treasurer, The Electrical Engineering & Supply Co., 413 Jackson St., and 529 Holly Ave., St. Paul, Minn.	A May 20, 1890 M June 17, 1890
BROWN, J. STANFORD	Consulting Electrical Engineer, Camden, N. J.	A Sept. 6, 1887 M Nov. 1, 1887

Name.	Address.	Date of Membership.
BRUSH, CHAS. F.	Electrical Engineer, 956 Euclid Ave, Cleveland, O.	A April 15, 1884 M Oct. 21, 1884
BURLEIGH, CHAS. B.	Sup't. Isolated Dep't. Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	A April 21, 1891 M Feb. 16, 1892
BYLLESBY, HENRY M.	Northwest Thomson-Houston Electric Co., 403 Sibley St., St. Paul, Minn.	A Sept. 7, 1888 M Oct. 2, 1888
CAHOON, JAS. B.	Electrical Engineer, Thomson-Houston Electric Co., 68 Baker St., Lynn, Mass.	A June 17, 1890 M May 19, 1891
CARROLL, LEIGH	President and General Manager, The Edison Electric Illuminating Co., Birmingham, Ala.	A Oct. 1, 1889 M Nov. 12, 1889
CHAMBERLAIN, J. C.	(*Manager.*) Electrical Engineer, 136 Liberty St., and 135 East 18th St., New York.	A Dec. 6, 1887 M Jan. 3, 1888
CHANDLER, CHARLES F.	Professor of Chemistry, Columbia College, and Prof. of Chemistry and Physics, College of Physicians and Surgeons, New York City.	A Jan. 20, 1891 M June 7, 1892
CHEEVER, CHAS. A.	13 Park Row, New York.	A April 15, 1884 M Oct. 21, 1884
CLARK, ERNEST P.	Electrical Engineer, Clark Electric Co., 192 Broadway, New York.	A Jan. 8, 1887 M Nov. 1, 1887
CLARKE, CHAS. L.	Mechanical and Electrical Engineer, 55 Liberty St., New York.	A April 15, 1884 M Jan. 6, 1885
COLBY, EDWARD A.	Lock Box 313, Newark, N. J.	A April 2, 1889 M May 7, 1889
CONDICT, G. HERBERT	General Manager, The Electric Car Co. of America, 4720 Green St., Germantown, Pa.	A July 12, 1887 M Sept. 6, 1887
COTHREN, WM. H.	Edison General Electric Co., Rialto Building, Chicago, Ill.	A Aug. 6, 1889 M Oct. 1, 1889
COWLES, ALFRED H.	Technical Adviser to the Cowles Smelting and Aluminum Co., 656 Prospect St., Cleveland, O.	A Mar. 5, 1889 M May 7, 1889
CROCKER, FRANCIS B. [Life Member.]	Instructor in Electrical Engineering, School of Mines, Columbia College, and 54 W. 21st Street, New York.	A May 24, 1887 M April 2, 1889
CROSS, PROF. CHAS. R.	Thayer Professor of Physics, and Director of the Rogers Laboratory, Mass. Institute of Technology, Boston, Mass.	A April 15, 1884 M Oct. 21, 1884
CURTISS, GEORGE F.	Electrician, Bureau of Information, General Electric Co., 620 Atlantic Ave., Boston, Mass.	A April 2, 1889 M Nov. 24, 1891
CUTTER, GEORGE	Dealer in Electrical Supplies, 315 South Canal St., Chicago, Ills.	A June 17, 1890 M May 19, 1891
CUTTRISS, CHAS.	Electrician, The Commercial Cable Co., 1 Broad St., New York.	A Nov. 1, 1887 M Dec. 6, 1887

Name.	Address.	Date of Membership.
DAFT, LEO	Consulting Electrical Engineer and Contractor, Burke Building, Seattle, Wash.	A Dec. 9, 1884 M Jan. 6, 1885
DANVERS, ALAN	Managing Director and Chief Electrician, The Anglo-Portugese Telephone Co., L't'd. 60 Travessa Santa Justa, Lisbon, Port'l.	A Nov. 1, 1887 M Sept. 3, 1889
DANVERS, ERNESTO	Electrical Engineer, Casilla 74, Rosario, Argentine Republic.	A Jan. 3, 1888 M May 1, 1888
DAVIES, JOHN E.	Professor of Physics, University of Wisconsin, 523 Carroll St. Madison, Wis.	A Jan. 7, 1890 M Mar. 18, 1890
DAVIS, CHARLES H.	Consulting Electrical Engineer, 120 Broadway, New York.	A Mar. 18, 1890 M June 17, 1890
DELAFIELD, A. FLOYD, *Ph.D.*	Electrical Engineer, Noroton, Conn.	A May 7, 1889 M Oct. 1, 1889
DELANY, PATRICK BERNARD, (*Manager*).	Inventor, South Orange, N. J.	A April 15, 1884 M Nov. 24, 1891
DICKENSON, SAMUEL S.	Sup't, Commercial Cable Co., Hazel-Hill, Guysborough Co., N.S.	A Mar. 6, 1888 M Oct. 1, 1889
DIEHL, PHILIP	Inventor, Singer Sewing Machine Co., 508 Morris Ave., Elizabeth, N. J.	A April 15, 1884 M Dec. 9, 1884
D'INFREVILLE, GEORGES	Electrical Engineer and Expert 434 Canal St., New York.	A Nov. 1, 1887 M Dec. 6, 1887
DOIJER, H.	Consulting Electrical Engineer, Oude-delft 222, Delft, Holland.	A Jan. 7, 1890 M Mar. 18, 1890
DONNER, WILLIAM H.	Sprague Elevator Co., 135 W. 23d St., New York City.	A. Nov. 18, 1890 M Dec. 16, 1890
DUDLEY, CHARLES B.	Chemist and Scientific Expert, Penn. R. R. Co., 1219 Twelfth Ave., Altoona, Pa.	A Oct. 1, 1889 M Nov. 12, 1889
DUNCAN, DR. LOUIS	(*Vice-President*). Johns Hopkins University, Baltimore, Md., Firm of Sprague, Duncan & Hutchinson, 15 Wall St., New York City.	A July 12, 1887 M Sept. 6, 1887
DUNSTON, ROBERT EDWARD,	Room 86, Foster Block, Hartford, Conn.	A Oct. 27, 1891 M Feb. 16, 1892
DYER, R. N.	Patent Attorney, 36 Wall St., New York.	A July 12, 1887 M Sept. 6, 1887
EDISON, THOMAS A.	Mechanician and Inventor, Orange, N. J.	A April 15, 1884 M Oct. 21, 1884
EMERY, CHARLES EDWARD	Consulting Engineer, Bennett Building, cor. Fulton and Nassau Sts., New York.	A June 26, 1891 M April 19, 1892
EUSTIS, HERBERT H.	President and Electrician, Eastern Electric Cable Co., 61 Hampshire St., Boston, Mass.	A April 15, 1890 M Nov. 24, 1891
FARNHAM, ISAIAH H.	Electrician for the N. E. Telephone & Telegraph Co., 125 Milk St., Boston, Mass.	A June 8, 1887 M July 12, 1887

Name.	Address.	Date of Membership.
FESSENDEN, REGINALD A.	(Address unknown.)	A Oct. 21, 1890 M Dec. 16, 1890
FIELD, C. J.	President and General Manager Field Engineering Co., 143 Liberty St., New York.	A June 8, 1887 M Nov. 1, 1887
FIELD, STEPHEN D.	Electrician and Inventor, Yonkers, N. Y.	A April 15, 1884 M Oct. 21, 1884
FLEMING, WILFRID H.	Trask Avenue, Bayonne City, N. J.	A Dec. 6, 1887 M Jan. 3, 1888
FOSTER, HORATIO A.	(*Manager.*) Electrical Engineer, 548 E. 164th St., New York.	A June 8, 1887 M Sept. 6, 1887
FREEMAN, DR. FRANK L.	Attorney-at-Law, Solicitor of Patents, Electrical Expert, 931 F St., Washington, D. C.	A May 7, 1889 M Sept. 3, 1889
GARRATT, ALLAN V.	President, Spokane and University Heights Street Railway Co., Spokane Falls, Wash.	A April 2, 1889 M May 7, 1889
GARVER, M. M.	(Present address unknown.)	A July 10, 1888 M Sept. 3, 1889
GEYER, DR. WM. E.	Stevens Institute of Technology, Hoboken, N. J.	A June 5, 1888 M Sept. 7, 1888
GRAY, ELISHA DR.	Electrician and Inventor, Highland Park, Ill.	A Feb. 16, 1892 M May 17, 1892
GRISCOM, WM. W.	Haverford College P. O., Montgomery Co., Pa. President, The Electro Dynamic Co., 224 Carter St., Philadelphia.	A June 5, 1888 M Mar. 18, 1890
HALL, CLAYTON C.	Civil Engineer, 810 Park Ave., Baltimore, Md.	A April 15, 1884 M Oct. 21, 1884
HAMBLET, JAMES	(*Manager.*) Manager Time Service, W. U. Tel. Co., 195 Broadway, P. O. Box 3393, New York.	A Nov. 1, 1887 M Dec. 6, 1887
HAMILTON, GEO. A.	Electrician, Western Electric Co., 22 Thames cor. Greenwich St., New York, and 532 Morris Ave., Elizabeth, N. J.	A April 15, 1884 M Oct. 21, 1884
HAMMER, W. J.	(*Vice-President.*) Consulting and Supervising Electrical Engineer, 533 Temple Court, N. Y., and 23 Rowland St., Newark, N. J.	A June 8, 1887 M July 12, 1887
HASKINS, CHARLES H.	Electrician, 80 Broadway, New York.	A April 15, 1884 M Oct, 21, 1884
HAYES, HAMMOND V.	Electrician, American Bell Telephone Co., 127 Purchase St., Boston, Mass.	A Nov. 12, 1889 M Mar. 18, 1890
HAYNES, F. T. J.	Divisional Telegraph Engineer, Great Western Railway, Taunton, Eng.	A Dec. 6, 1886 M Jan. 3, 1887
HAZARD, COL. ROWLAND R.	N. Y. District Railway Co., 120 Broadway, New York.	A April 15, 1884 M Oct. 21, 1884
HEINRICH, RICHARD O.	Electrical Engineer, Weston Electrical Instrument Co., 114 William St., Newark, N. J.	A Oct. 1, 1889 M Oct. 25, 1862

Name.	Address.	Date of Membership.
HERING, CARL	(*Vice-President.*) Editor *Electrical World*, and Consulting Electrical Engineer, 3816 Spring Garden St., Philadelphia, Pa.	A Jan. 3, 1888 M June 5, 1888
HERZOG, DR. F. BENEDICT	President Herzog Teleseme Co., 30 Broad St., New York.	A May 24, 1887 M July 12, 1887
HEWITT, CHARLES	The Edison General Electric Co., Edison Building, Broad St., Box 3067, New York City.	A Sept. 16, 1890 M May 17, 1892
HIBBARD, ANGUS S.	(*Manager*). General Superintendent, American Telephone and Telegraph Co., 18 Cortlandt St., N. Y. City.	A Nov. 24, 1891 M Feb. 16, 1892
HIGGINS, EDWARD E.	Street Railway and Financial Counsel, Mills Building. 35 Wall St., New York City.	A June 8, 1887 M July 12, 1887
HOUSTON, PROF. EDWIN J.	Prof. of Physics, Franklin Inst., Prof. of Physics and Physical Geography, Central High School, 1809 Spring Garden St., Philadelphia, Pa.	A April 15, 1884 M Oct. 21, 1884
HOWELL, JOHN W.	Electrician, Edison Lamp Works, Harrison N. J.	A July 12, 1887 M June 5, 1888
HOWELL, WILSON S.	Electrical Expert, Edison Lamp Works, Harrison, N. J.	A Sept. 3, 1889 M Mar. 18, 1890
HUNTER, RUDOLPH M.	Mechanical and Elect'al Engineer, 926 Walnut St., Philadelphia, Pa.	A July 13, 1886 M May 17, 1887
HUTCHINSON, DR. CARY T.	Electrical Engineer, 56 West 25th St., Firm of Sprague, Duncan & Hutchinson, 15 Wall St., New York City.	A Feb. 7, 1890 M Dec. 16, 1890
HYDE, JEROME W.	Springfield, Mass.	A June 8, 1887 M Nov. 1, 1887
INRIG, ALEC GAVAN	Rue St. Gommaire, 23, Antwerp, Belgium.	A Jan. 19, 1892 M May 17, 1892
JACKSON, DUGALD C.	Professor of Electrical Engineering University of Wisconsin, Madison, Wis.	A May 3, 1887 M June 17, 1890
JACKSON, FRANCIS E.	With Edison Lamp Works, Harrison N. J.	A Jan. 3, 1888 M June 17, 1890
JANNUS, FRANKLAND	Solicitor of Patents, 928-30 F. St. Washington, D. C.	A Nov. 12, 1889 M Mar. 18, 1890
JENKS, W. J.	Technical Department, Edison, General Electric Co., 44 Broad Street, Box 3067, New York.	A June 8, 1887 M Nov. 1, 1887
JONES, FRANCIS W. [Life Member.]	Assistant Gen'l-Manager and Electrician, Postal-Telegraph Cable Co., 5 Dey St., New York.	A April 15, 1884 M Oct. 21, 1884
KNOWLES, E. R.	Chief Electrician, The Schuyler Electric Company, Middletown, Conn.	A June 8, 1887 M July 12, 1887
KNUDSON, A. A.	Manager, Eastern Electric Co., St. John, N. B. Room 37, Drexel Bldg., New York City.	A Dec. 6, 1887 M Jan. 3, 1888

Name.	Address.	Date of Membership.
LANGE, PHILIP A.	Assistant Superintendent Westinghouse Electric and Manufacturing Co., Newark, N. J.	A Mar. 6, 1888 M June 5, 1888
LANGTON, JOHN	General Manager, Canadian Edison M'f'g Co., Peterboro. Ont.	A Mar. 6, 1888 M June 5, 1888
LATTIG, J. W.	Electrical Engineer, National Switch & Signal Co., and 1029 Arlington Terrace, Easton, Pa	A June 8, 1887 M July 12, 1887
LAWSON, A. J.	Electrical Engineer and Contractor, Grantown, Scotland.	A Mar. 18, 1890 M June 17, 1890
LEONARD, H. WARD	(*Manager*). General Manager, The H. Ward Leonard Co., 136 Liberty St., New York City.	A July 12, 1887 M Sept. 6, 1887
LEONARD, M. B.	Electrical Engineer, and Supt. of Telegraph, Chesapeake & Ohio R'y. Co., Richmond, Va.	A Nov. 6, 1886 M May 1, 1888
LIEB, JOHN W., JR.	Chief Engineer, Società Generale Italiana di Elettricita (Sistema Edison). Via S. Radigonda N. 4, Milan, Italy.	A Sept. 6, 1887 M Nov. 1, 1887
LOCKWOOD, THOMAS D. [Life Member.]	(*Vice-President.*) Electrical Engineer, and Advisory Electrician, P. O. Drawer 2, Boston, Mass.	A April 15, 1884 M Oct. 21, 1884
LYNE, LEWIS F.	Mechanical and Elect'al Engineer, 307 Grove St., Jersey City, N. J.	A Jan. 3, 1888 M June 5, 1888
MACFARLANE, ALEXANDER	Professor of Physics, University of Texas, Austin, Texas.	A Jan. 19, 1892 M May 17, 1892
MAILLOUX, C. O.	Consulting Electrical Engineer, 45 William St., New York.	A April 15, 1884 M Oct. 21, 1884
MARKS, WILLIAM DENNIS,	*Ph. B., C. E.* Edison Electric Light Co., Philadelphia, Pa.	A Feb. 7, 1888 M May 1, 1888
MARSHALL, J. T.	Inspector of Lamp Manufacture, Edison Lamp Works, Harrison, N. J.	A Oct. 1, 1889 M Nov. 12, 1889
MAVER, WILLIAM, JR.	Electrical Expert, 31 Nassau St., New York City.	A July 12, 1887 M Apr. 21, 1891
MAYNARD, GEO. C.	Electrical Engineer, 1409 New York Ave., Washington, D. C.	A April 15, 1884 M Dec. 9, 1888
MCCAY, H. K.	Electrician, 106 E. German St., Baltimore, Md.	A Sept. 16, 1890 M May 19, 1891
METCALFE, GEORGE R.	Electrical Engineer, Editor *Electricity*, 6 Park Place, and 404 W. 22d Streets, New York City.	A April 19, 1892 M Nov. 15, 1892
MILLIS, JOHN	Lieutenant of Engineers, U. S. Army. 1 Prytania St., New Orleans, La.	A July 7, 1884 M Mar. 3, 1885
MILLS, FRANK P.	Superintendent Cleveland Iron Mining Co., Ishpeming, Mich.	A Jan. 6, 1885 M Mar. 3, 1885
MOLERA, E. J.	Civil Engineer, 40 California St., San Francisco, Cal.	A Jan. 16, 1892 M June 7, 1892

Name.	Address.	Date of Election.
NICHOLS, DR. EDWARD L.	Professor of Physics, at Cornell University, Ithaca, N. Y.	A Oct. 4, 1887 M Dec. 6, 1887
PAINE, SIDNEY B.	Manager, Mill Power Dep't., General Electric Co., 620 Atlantic Ave., Boston, Mass.	A June 8, 1887 M Nov. 1, 1887
PAINE, F. B. H.	Edison General Electric Co., Fleischner Building, Portland, Oregon.	A Dec. 16, 1890 M Nov. 25, 1891
PARKS, C. WELLMAN	Electrician, 1825 Fifth Ave., Troy, N. Y	A July 12, 1887 M May 1, 1888
PARSHALL, H. F.	Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	A Sept. 7, 1888 M Mar. 18, 1890
PATTEN, F. JARVIS,	Electrical Engineer, Care C. J. Kintner, 45 Broadway, New York.	A Sept. 6, 1887 M Nov. 1, 1888
PATTISON, FRANK A.	Firm of Pattison Bros., Consulting and Constructing Electrical Engineers, 135 Broadway, New York City.	A Sept. 22, 1891 M Dec. 16, 1891
PERRINE, FREDERIC A. C.	Care Germania Electric Co., 620 Atlantic Ave., Boston, Mass.	A Sept. 16, 1890 M Dec. 16, 1890
PHELPS, GEO. M.	(*Treasurer*). President, *Electrical Engineer*, 203 Broadway, New York.	A April 15, 1884 M Oct. 21, 1884
PICKERNELL, F. A.	Sup't. of Equipment, Amer. Tel. & Tel. Co., 18 Cortlandt St. N. Y.	A Feb. 7, 1890 M Mar. 18, 1890
PIKE, CLAYTON W.	James W. Queen & Co., 1010 Chestnut St., Philadelphia, Pa.	A Dec. 16, 1891 M Oct. 25, 1892
POPE, FRANKLIN L.	(*Past President*). Consulting Electrical Engineer and Expert, 15 Wall St., N. Y. Residence, Elizabeth, N. J.	A April 15, 1884 M Oct. 21, 1884
PORTER, J. F.	Representing J. G. White & Co., of New York, Heist Building, Kansas City, Mo.	A Sept. 6, 1887 M Nov. 1, 1887
PRATT, ROBERT J.	Electrician. Treas. and Mgr. Electric Mfg. Co. and Gas Engine Co., Greenbush, N. Y.	A July 12, 1887 M Sept. 6, 1887
PRESCOTT, GEO. B., JR.	Electrical Engineer. The Stanley Laboratory Co., Pittsfield, Mass.	A July 12, 1887 M Nov. 1, 1887
RAE, FRANK B.	Electrical Engineer, 27 and 28 Cleland Building, 31st St., Detroit Mich.	A April 15, 1884 M Oct 25, 1892
RAYMOND, CHAS. W.	Civil, Electrical and Mining Engineer, Monte Vista, Col.	A June 8, 1887 M May 17, 1887
RECKENZAUN, ANTHONY	Electrical Engineer, 7 Albert Terrace, Hemberton Road, Stockwell, London, S. W. England.	A Nov. 1, 1887 M Dec. 6, 1887
RECKENZAUN, FREDERICK,	Electrician, Box 225, West Hoboken, N. J.	A Mar. 6, 1888 M June 5, 1888
RICE, E. WILBUR, JR.	Technical Director, The General Electric Co., Lynn, Mass.	A Dec. 6, 1887 M Jan. 3, 1888

Name.	Address.	Date of Election.
RIES, ELIAS E.	Electrician and Electrical Engineer, 430 South Broadway, Baltimore, Md.	A July 12, 1887 M Sept. 6, 1887
ROBB, WM. LISPENARD	Professor of Physics, Trinity College, Hartford, Conn.	A Dec. 16, 1891 M Mar. 15, 1892
ROBERTS, E. P.	Electrician and Sup't, Swan Lamp Co., Belden St., Cleveland, O.	A Jan. 6, 1885 M Feb. 3, 1885
ROHRER, ALBERT L.	Electrical Engineer, with General Electric Co., Schenectady, N. Y.	A Nov. 1, 1887 M May 1, 1888
SALOMONS, *Sir* DAVID LIONEL, *Bart. M. A.*, [Life Member.]	Engineer and Barrister, Broomhill, Tunbridge Wells, Kent, and 49 Grosvenor St., London, W., England.	A Feb. 7, 1888 M May 1, 1888
SCHULZE-BERGE, FRANZ	44 Monroe Place, Brooklyn, N. Y.	A Nov. 12, 1889 M Mar. 18, 1890
SHALLENBERGER, O. B.	Electrician, Westinghouse Electric Co., Pittsburg, Pa.	A Sept. 7, 1888 M Dec. 4, 1888
SHELDON, SAMUEL, *A. M. Ph. D.*	Professor of Physics and Electrical Engineering, Polytechnic Institute, 170 State St., Brooklyn, N Y.	A Dec. 16, 1890 M Oct. 27, 1891
SHEPARD, WM. E.	Lincoln St. Ry. Co., Lincoln, Neb.	A Feb. 7, 1890 M Mar. 18, 1890
SLATER, HENRY B.	Manager and Sup't, The Canon City Electric Light and Power Co., Canon City Col.	A April 15, 1884 M Dec. 9, 1884
SMITH, JESSE M.	Consulting Electrical Engineer and Expert in Patent Causes, 36 Moffatt Block, Detroit, Mich.	A April 15, 1884 M June 26, 1891
SMITH, T. CARPENTER	Partner in firm of M. R. Muckle Jr. & Co., 212 Drexel Building, Philadelphia, Pa.	A Oct. 27, 1891 M Dec. 16, 1891
STANDFORD, WILLIAM	Ass't Sup't Telegraphs, Colonial Gov't, Cape Town, Cape of Good Hope, Africa.	A Oct. 4, 1887 M Dec. 6, 1887
STEBBINS, THEODORE	Superintendent Railway Construction, General Electric Co, 620 Atlantic Ave., Boston, Mass.	A July 9, 1889 M June 17, 1890
STEINMETZ, CHARLES P.	(*Manager.*) Electrician, Osterheld & Eickemeyer, 124 Waverly Place, Yonkers, N. Y.	A Mar. 18, 1890 M April 21, 1891
STIERINGER, LUTHER	Electrical Expert, 1873 Lexington Ave., New York.	A June 8, 1887 M Nov, 1, 1887
STILLWELL, LEWIS B.	Electrical Engineer, Westinghouse Electric and M'f'g Co., Pittsburg, Pa.	A April 19, 1892 M Nov. 15, 1892
TAINTOR, GILES	Division Supt., Western Division New England Telephone and Telegraph Co. Springfield, Mass.	A June 26, 1891 M Dec. 16, 1891
TALTAVALL, THOS. R.	Editor, *Electrical Age*, World Building, New York City.	A Jan. 20, 1891 M Oct. 27, 1891
TERRY, CHARLES A.	Lawyer, Westinghouse Electric and M'f'g. Co, Pittsburg, Pa.	A April 5, 1887 M May 17, 1887

Name.	Address.	Date of Election.
THOMAS, BENJAMIN F.	Professor of Physics, Ohio State University, Columbus, O.	A June 7, 1892 M Nov. 15, 1892
THOMSON, PROF. ELIHU	(*Past President*). Electrician, Thomson Houston Electric Co., and Thomson Electric Welding Co., Lynn, Mass.	A April 15, 1884 M April 21, 1891
THOMPSON EDWARD P.	Consulting Electrician and Patent Attorney in Electrical Cases, 5 Beekman St., New York.	A April 15, 1884 M Dec. 3, 1889
THURNAUER, ERNST	Manager, Thomson-Houston International Elec. Co., 7 Rue du Louvre, Paris, France.	A Oct. 14, 1887 M Dec. 6, 1887
TURNER, WILLIAM S.	President, Woodbridge & Turner Engineering Co., 47 Times Building, New York.	A Dec. 7, 1886 M Oct. 2, 1888
UPTON, FRANCIS R.	General Manager, Edison Lamp Works, Harrison, N. J. Residence, 107 Day St., Orange, N. J.	A May 17, 1887 M Mar. 15, 1892
VAIL, J. H.	Ass't Engineer in Chief, Edison General Electric Co., Edison Building, P. O. Box 3067, N. Y.	A June 8, 1887 M Nov. 1, 1887
VANSIZE, WILLIAM B.	Solicitor of Patents, 44 Broad St., New York.	A April 15, 1884 M Oct. 21, 1884
WADDELL, MONTGOMERY	Engineer, The Waddell-Entz Electric Co., Bridgeport, Conn.	A Feb. 7, 1888 M May 1, 1888
WALKER, SYDNEY F.	Electrical Engineer, 195 Severn Road, Cardiff, Wales.	A June 2, 1885 M May 17, 1887
WALDO, DR. LEONARD	Electrical Engineer, Firm of Waldo & Stout, Aluminum, Silicon and Manganese Bronze Founders, Bridgeport, Conn.	A June 5, 1888 M Dec. 4, 1888
WEAVER, W. D.	32 West 31st Street, New York City.	A May 17, 1887 M May 17, 1887
WEBB, HERBERT LAWS	(*Manager*) 26 West 34th Street, New York City.	A Oct. 21, 1890 M Dec. 16, 1890
WEEKS, EDWIN R.	General Manager, Kansas City Electric Light Co., National Bank of Kansas City Building. Kansas City, Mo.	A Sept. 6, 1887 M Nov. 1, 1887
WELLER, HARRY W.	Railroad Inspector, The Edison General Electric Co., Edison Building, Broad Street, New York City.	A Oct. 21, 1890 M Nov. 24, 1891
WESTON, EDWARD	(*Past President.*) Vice-President, Weston Electrical Instrument Co., 120 William St., and 645 High St., Newark, N. J.	A April 15, 1884 M Oct. 21, 1884
WETZLER, JOSEPH	Editor *Electrical Engineer*, 203 Broadway, N. Y.	A April 15, 1884 M Dec. 9, 1884
WHARTON, CHAS. J.	82 Bond St., London England.	A Jan. 3, 1888 M May 1, 1888

Name.	Address.	Date of Election.
WHEELER, SCHUYLER S., *Sr.D.* [Life Member.]	President Crocker-Wheeler Electric Motor Co., 430-432 West Fourteenth St., Electrical Expert, Board of Electrical Control, 1266 Broadway, New York.	A June 2, 1885 M Sept. 1, 1885
WILKES, GILBERT	Chief Engineer, Detroit Electrical Works, Detroit, Mich.	A Jan. 7, 1890 M Mar. 18, 1890
WILSON, CHARLES H.	General Superintendent, Chicago Telephone Co., 203 Washington Street, Chicago, Ill.	A Nov. 24, 1891 M Feb. 16, 1892
WILSON, FREMONT	Electrician, 293 Lenox (6) Ave., New York.	A Mar. 6, 1888 M June 5, 1888
WILSON, HARRY C.	Supt. of P. O. Telegraph with the Government, Kingston, Jamaica, West Indies.	A Jan. 19, 1891 M June 7, 1892
WINCHESTER, A. E.	Designer of Steam Electrical Plants, Wilton, Conn.	A June 8, 1887 M Nov. 1, 1887
WOLCOTT, TOWNSEND	Consulting Electrician, 849 Greene Ave., Brooklyn, N. Y.	A Mar. 6, 1888 M Dec. 16, 1890
WOODBRIDGE, J. L.	Secretary and Treasurer, Woodbridge & Turner Engineering Co., 47 Times Building, New York.	A June 8, 1887 M Nov. 1, 1887
WURTS, ALEXANDER JAY,	Electrical Expert, Westinghouse Electric & Mfg. Co., Pittsburg, Pa.	A April 19, 1892 M Nov. 15, 1892
YOUNG, C. GRIFFITH	Electrical Engineer, Care J. G. White & Co., 29 Broadway, New York City.	A Jan. 3, 1889 M April 21, 1891
ZETZSCHE, PROF. DR. CARL EDUARD,	Telegraph Engineer, Carlstrasse 13, Dresden, N., Saxony.	A Nov. 1, 1887 M Jan. 3, 1888

Members, - - - 195.

ASSOCIATE MEMBERS.

ABERNETHY, J. P.	Superintendent of Telegraph, 53 City Hall, Cleveland, O.	July 7, 1884
ABBOTT, ARTHUR V.	Mechanical Engineer, North Ave. Railway Co., Blackstone Building, Baltimore, Md.	Oct. 21, 1890
ALBRIGHT, H. FLEETWOOD	Electrical Engineer, Western Electric Co., 227 S. Clinton St., Chicago, Ill.	Sept. 27, 1892
ALDEN, JAMES S.	Assistant Manager, with L. H. Alden, 486 River Drive, Passaic, N. J.	May 19, 1891
ALDRICH, WILLIAM S.	20 Angell St., Wm. A. Harris, Steam Engine Co., Providence, R. I.	Mar. 15, 1892
ALEXANDER, HARRY	Electrical Contractor, 126 Liberty and 340 W. 145th St., New York City.	April 21, 1891
ALEXANDER, P. H,	Southern Electric Co., Hoen Building, Baltimore, Md.	Dec. 16, 1890
ANDREWS, WM. S.	Supt. Construction Dept., Edison General Electric Co., Edison Building, Box 3067, New York.	Mar. 5, 1889

Name.	Address.	Date of Election.
ANTHONY, WATSON G.	Electrician, 32½ Webster St., Newark, N. J.	Feb. 24, 1891
ARMSTRONG, CHAS. G.	Electrical Expert and Electrical Architect, 1301 Auditorium Tower Chicago, Ill.	Sept. 27, 1892
ARNOLD, BION J.	Consulting Engineer, General Electric Co., 4128 Prairie Ave., Chicago, Ill.	Oct. 25, 1892
ARNOLD, CRAIG R.	Electrician and Treasurer, Arnold Electric Mfg. Co., Chester, Penn.	Nov. 15, 1892
ATWOOD, GEORGE F.	Orange, N. J.	Sept. 16, 1890
BADT, LIEUT. FRANCIS B.	Manager, Mining Dep't. T.-H. Electric Co., 6506 Lafayette Ave., Englewood, Ill.	April 19, 1892
BAILLARD, E. V.	Equitable Mfg. and Electric Co., 611 West 36th St. and 363 Manhattan Ave., New York.	Dec. 3, 1889
BARNARD, JOHN H.	Vice President and General Manager, Wilmington Street Railway Co., Wilmington, N. C.	June 26, 1891.
BARTON, ENOS M.	President Western Electric Co., 227 South Clinton St., Chicago, Ill.	July 12, 1887
BARRETT, JOHN A.	Electrical Engineer and Expert, 13 Park Row, New York City.	June 8, 1887
BATES, F. C.	Electrical Engineer, with Thomson-Houston Electric Co., Lynn, Mass.	Jan. 20, 1891
BAUER, W. F.	Electrician, 62 Steuben St., East Orange, N. J.	April 15, 1890
BEALS, PASCAL P.	Electrical Contractor and Agent for the Waddell-Entz Electric Co, 50 Terrace, Buffalo, N. Y.	May 17, 1892
BEATTIE, JOHN, JR.	Manager and Superintendent, The Beattie Battery, Zinc and Electric Co., Fall River, Mass	Sept. 6, 1887
BEDELL, FREDERICK, DR.	Physical Laboratory, Cornell University. Address, 118 Elm St., Montclair, N. J.	April 21, 1891
BENNETT, J. C.	Electrician, Edison General Electric Co. Box 3067, 44 Broad St., New York.	Mar. 18, 1890
BERHGOLTZ, HERMAN	General Manager, The Wightman Elec. Mfg. Co., 4 Commonwealth Bldg., Scranton, Pa.	April 2, 1889
BERLINER, EMILE	Inventor, Columbia Road, between Fourteenth and Fifteenth Sts., Washington, D. C.	April 15, 1884
BERTHOLD, VICTOR M.	With T. D. Lockwood in Patent Department of American Bell Telephone Co., 16 Upton Street, Cambridgeport, Mass.	May 17, 1892
BLACK, CHAS. N.	Brush Electric Co., Belden St., Cleveland, O.	Feb. 7, 1890

Name.	Address.	Date of Election.
BLADES, HARRY H.	General Sup't., The Detroit Motor Co., 1343-55 Cass Ave., Detroit, Mich.	April 19, 1892
BLAKE, HENRY W.	The Street Railway Publishing Co., World Building, New York City.	Nov. 13, 1888
BLAKENEY, W. H.	Firm of Blakeney and Rennie, Mechanical and Electrical Engineers, 33 Bath St., Glasgow, Scotland.	Mar. 15, 1892
BLISS, DONALD M.	Electrician, The Canada Electric Co., Amherst, N. S.	Feb. 7, 1890
BLISS, WM. J. A.	820 Connecticut Ave., Washington, D. C.	Jan. 20, 1891
BLOOD, W. HENRY, JR.	The Franklin Electric Co., 535 Delaware St., Kansas City, Mo.	April 2, 1889
BOGART, A. LIVINGSTON	Electrical and Patent Expert, 22 Union Square, New York,	July 10, 1888
BOGUE, CHARLES J.	165 West Eighteenth St., New York,	Dec. 3, 1889
BOHM, LUDWIG K. *Ph.D.*,	Consulting Electrical & Chemical Expert, 81 Nassau St., New York City.	Nov. 15, 1892
BOSSON, FREDERICK N.	Electrician, Calumet and Hecla Mining Co., Calumet, Mich.	May 17, 1892
BOTTOME, TURNER D.	Electrician and General Manager, White House Mills, Hoosick, N.Y.	April 21, 1891
BOTTOMLEY, HARRY	Electrical Engineer, 505 Exchange Bldg., Boston, Mass., 6 Farrar St., Lynn, Mass.	April 2, 1889
BOWMAN, FRED A.	Supt , New Glasgow Electric Co., New Glasgow, Nova Scotia.	May 19, 1891
BRACKETT, PROF. CYRUS F.	Princeton, N. J.	April 15, 1889
BRADDELL, ALFRED E.	Electrical Inspector, Underwriters' Association, Middle Dep't, 308 Walnut St., Philadelphia, Pa.	Sept. 1, 1890
BRADLEY, FRED. W.	Electrical Engineering Dep't. Jackson Park, Chicago, Ill.	May 20, 1890
BRADY, PAUL T.	State Agent, Thomson-Houston Electric Co., Syracuse, N. Y.	July 12, 1887
BROPHY, WILLIAM	17 Egleston St., Jamaica Plain, Mass.	Mar. 5, 1889
BROWN, ALEX. S.	Electrical Engineer, 136 Liberty St., New York City.	Jan. 7, 1890
BROWN, ALFRED S.	Electrical Engineer, Western Union Telegraph Co., 195 Broadway, New York City.	Mar. 18, 1890
BROWN, CHARLES A.	Attorney, Firm of Barton & Brown, Attorneys and Counsellors, 1428 1430 Monadnock Bldg., Chicago, Ill.	July 12, 1887
BROWNING, HOWARD L.	(Present address unknown.)	Dec. 6, 1887

Name.	Address.	Date of Election.
BUBERT, J. F.	Electrical Engineer, The Mather Electric Co., 116 Bedford St., Boston, Mass.	June 7, 1892
BUCKINGHAM, CHAS. L.	Patent Attorney, Western Union Telegraph Co., 195 Broadway, P. O. Box 3393, New York.	April 15, 1884
BUNCE, THEODORE D., JR.	Battery Expert, The Consolidated Electric Storage Co., 477 No. Penna St., Indianapolis, Ind.	May 20, 1890
BURNS, ELMER Z.	Consulting Electrical Engineer, Niagara Falls, N. Y.	Feb. 7, 1890
BURTON, GEO. D.	President, Electrical Forging Co., 194 Washington St., Boston, Mass.	April 21, 1891
BUYS, BERT.	Electrician, Rutherford B. S. & C. Elec. Co., Rutherford, N. J.	Feb. 7, 1890
CALDWELL, EDWARD	Assistant Editor, *Electrical World*, 167 Times Building, New York City.	Jan. 20, 1891
CALDWELL, FORDYCE S.	Proprietor Western Electric Construction Co. 503 Delaware St., Kansas City, Mo. and 151 Henry St., Brooklyn, N. Y.	Sept. 22, 1891
CALLENDER ROMAINE	Electrician, Brantford Electrical Laboratory, Brantford, Canada.	Sept. 27, 1892
CARTWRIGHT, FRED'K. G.	Electrical Engineer, and Agent Fort Wayne Electric Co., 35 New Montgomery St., San Francisco, Cal.	Sept. 22, 1891
CARTY, J. J.	Electrician, Metropolitan Telephone and Telegraph Co., 18 Cortlandt St., New York.	April 15, 1890
CASE, WILLARD E.	6 Fort St., Auburn, N. Y.	Feb. 7, 1888
CASPER, LOUIS	Wheatstone Repeater Chief, Western Union Telegraph Co., Cheyenne, Wyoming.	April 21, 1891
CHAMBERLAIN, F. H.	Electrician. Metropolitan R. R. Co., 2411 P St., N. W. Washington, D. C.	June 17, 1890
CHENEY, FREDERICK A.	Sec'y, Treas'r and General Manager, The Elmira Illuminating Co., Elmira, N. Y.	Oct. 1, 1889
CHENEY, W. C.	Electrical Engineer, Willamette Falls Electric Co., Portland, Oregon.	Sept. 22, 1891
CHERMONT, ANTONIO LEITE,	Manager Telephone Co. of Para, Para, U. S. of Brazil, Care Herbst Bros, Box 1377, New York.	Mar. 18, 1890
CHILDS, W. H.	Bookkeeper for The Estey Organ Co., Brattleboro, Vt.	Sept. 6, 1887
CHINNOCK, C. E.	Edison General Electric Co., Edison Building, P. O. Box 3067, New York.	April 15, 1884
CHUBBUCK, H. EUGENE	Sec'y and Treas'r, The New Omaha Thomson-Houston Electric Co., Omaha, Neb.	Dec. 4, 1888

Name.	Address.	Date of Election.
CHURCHILL, ARTHUR.	Engineering Dept., Schenectady Works, Edison General Elec. Co., 23 Front St., Schenectady, N. Y.	April 15, 1890
CLAFLIN, ADAMS D.	General Manager, The Mather Electric Co., 116 Bedford St., Boston, Mass.	June 7, 1892
CLEMENT, LEWIS M.	1013 Central Ave., Oakland, Cal.	April 21, 1891
CLEVELAND, WM. B.	Electrical Engineer, 309 Perry-Payne Building, Cleveland, O.	April 15, 1884
COBB, JOHN S.	Electrician, 136 Liberty St., New York.	June 17, 1890
COFFIN, CHAS. A.	Vice-President and Treasurer, Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	Dec. 6, 1887
COGSWELL, A. R.	Electrician and Superintendent, Halifax Illuminating and Motor Co. Ltd., 34 Bishop St., Halifax, N. S.	April 21, 1891
COLGATE, GEO. L.	General Manager, Roanoke Electric Light and Power Co., Roanoke, Va.	June 17, 1890
COLLEY, BENJAMIN W.	First Ass't. Superintendent, The Commercial Cable Co., Hazel Hill, N. S.	Oct. 21, 1890
COLVILLE, FRANK C.	Electrician and Inventor, 1503 Seventh Ave., Oakland, Cal.	May 19, 1891
COMPTON, ALFRED G.	(*Manager.*) Professor of Physics, College of the City of New York, 17 Lexington Ave., New York.	Nov. 1, 1887
COOLIDGE, CHARLES A.	Sup't and Electrician, Northern Improvement Co., Centralia, Washington.	April 19, 1892
CORNELL, CHAS. L.	Electrical Engineer, Cornell Engineering Co., 45 Broadway, N. Y.	Feb. 7, 1890
CORY, CLARENCE L.	Professor of Electrical Engineeeing, University of California, Berkeley, Cal.	April 19, 1892
CRAM, HENRY B.	Treasurer, Bernstein Electric Co., 620 Atlantic Ave., Boston, Mass.	June 26, 1891
CRANDALL, CHESTER D.	Assistant Treasurer, Western Electric Co., 227 South Clinton St., Chicago, Ill.	Sept. 27, 1892
CRANE, W. F. D.	Manager Electrical Dep't. H. W. Johns Manufacturing Co., 87 Maiden Lane, New York City, and 24 Halstead Pl., East Orange, N. J.	Feb. 7, 1888
CROSBY, OSCAR T.	(*Vice-President.*) General Manager Railway Department, Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	Mar. 18, 1890
CUNTZ, JOHANNES H.	Assistant to Pres't Henry Morton, Stevens Institute of Technology, 137 Hudson St., Hoboken, N. J.	Mar. 5, 1889
CURTIS, CHAS. G.	63 Broadway, New York.	April 15, 1884

Name.	Address.	Date of Election.
CUSHING, F. W.	General Western Agent, Day's Kerite Wire and Cables, 225 Dearborn St., Chicago, Ill.	Nov. 24, 1891
CUSHMAN, HOLBROOK	Instructor in Physics, Columbia College, 337 West Twenty-second St., New York.	June 5, 1888
DAME, FRANK L.	Engineer, The Northwest Thomson-Houston Electric Co., 114 James St., Seattle, Wash.	June 26, 1891
DANA, R. K.	Agent Washburn and Moen M'f'g Co., 16 Cliff St., New York.	April 15, 1884
DANIELL, FRANCIS G.	Electrical Engineer, Evansville Street R. R. Co., Evansville, Ind.	Nov. 12, 1889
DAVENPORT, GEORGE W.	General Manager, Thomson-Houston International Electric Co., 44 Broad St., New York City.	June 4, 1889
DAVIDSON, EDW. C.	Patent Lawyer, Room 179, Times Bldg., New York.	Feb. 7, 1890
DAVIS, DELAMORE L.	Superintendent, Salem Electric Light & Power Co., 299 Lincoln Ave., Salem, O.	April 2, 1889
DAVIS, JOSEPH P.	Consulting Engineer, Care of Phœnix Construction Co., 115 W. 38th St., New York City.	April 15, 1884
DAVIS, MINOR M.	Ass't Electrician, Postal Telegraph Cable Co., 5 Dey St., New York.	April 6, 1886
DE KHOTINSKY, CAPT. ACHILLES,	Superintendent, Germania Electric Co., 505 Exchange Bldg., Boston, and Marlboro, Mass.	Oct. 27, 1891
DELAND, FRED	Editor, *World's Fair Electrical Engineering*. The Rookery, Chicago Ill.	Feb. 16, 1892
DENTON, JAMES E.	Professor of Experimental Mechanics, Stevens Institute of Technology, Hoboken, N. J..	July 12, 1887
DESMOND, JERE. A.	Supt. and Electrician, Kingston Electric Light and Power Co., Kingston, N. Y.	Jan. 19, 1892
DICKERSON, F. N.	Attorney-at-Law, 15 Wall St., N. Y.	April 15, 1884
DION ALFRED A.	Manager, Ahearn & Soper, 72 Sparks Street, Ottawa, Ont.	Jan. 7, 1890
DOANE, S. EVERETT	Thomson-Houston Electric Co., Swampscott, Mass.	Aug. 6, 1889
DOBBIE, ROBERT S.	Consulting Electrical Engineer, Times Building, New York City.	Feb. 5, 1889
DOREMUS, CHARLES A.	*M. D. Ph. D.* Chemist and Physicist, Bellevue Hospital Medical College, College of the City of New York and American Veterinary College, 92 Lexington Ave., New York.	July 7, 1884
DRESSLER, CHARLES E.	Maker of Scientific and Electrical Apparatus, College of the City of New York, 17 Lexington Ave., New York City.	Dec. 16, 1890

Name.	Address.	Date of Election.
DUNDERDALE, CLEAVELAND F.	Agent Westinghouse Electric Co., 146 Adams St., Chicago, Ill.	June 17, 1890
DUNN, GANO S.	Electrical Engineer, of the Crocker-Wheeler Electric Co., 430 West 14th St., Residence, 223 Central Park, West, New York City.	April 21, 1891
DURANT, EDWARD	Electrician, with F. Pearce, 115 E. 26th St., New York City.	Nov. 15, 1892
DURANT, GEO. F.	Vice-Pres't of Bell Telephone Co. of Mo., 322 Pine St., St. Louis, Mo.	April 15, 1884
EDWARDS, JAMES P.	Graniteville, S. C.	April 19, 1892
EKSTROM, AXEL	Electrician, Thomson-Houston Electric Co., Lynn, Mass.	June 17, 1890
ELEY, HARRIS H.	Electrical Workshop Sup't. W. C. & S. W. Telephone Co., 88 Colston St., Bristol, Eng.	Jan. 7, 1890
ELMER, WILLIAM, JR.	Under-graduate in Electrical Engineering, Princeton University, Princeton, N. J.	Mar. 18, 1890
EMMET, HERMAN L. R.	Publisher and Printer, 36 Cortlandt St., New York.	April 15, 1884
ENTZ, JUSTUS B.	Electrical Engineer, The Waddell-Entz Co., Bridgeport, Ct.	Jan. 7, 1890
ESSICK, SAMUEL V.	Electrician, The Essick Printing Tel. Co., 1 Broadway, New York City, and Yonkers, N. Y.	May 19, 1891
EVEREST, AUGUSTINE R.	Electrical Expert, Thomson Electric Welding Co., 89 State St., Boston, Mass.	May 19, 1891
FAY, THOMAS J.	39 King St., New York City.	June 26, 1891
FIELDING, FRANK E. [Life Member.]	Chemist and Assayer, Virginia City, Nev.	Sept. 6, 1887
FISCHER, GUSTAVE J.	Engineer for Tramway Construction, Public Works Department, Sydney, N. S. W.	Jan. 20. 1891
FISH, WALTER C.	Manager, Bernstein Electric Co., 620 Atlantic Ave., Boston, Mass.	June 26, 1891
FISHER, GEORGE E.	Secretary and General Manager, Commercial Electric Co., 55-57 Gratiot Ave., Detroit, Mich.	Sept. 27, 1892
FISKE, HENRY G.	Electrician, Croton Magnetic Iron Mines. 45 East Twenty-second Street, New York.	Nov. 12, 1889
FISKE, J. P. B.	Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	June 17, 1890
FLACK, J. DAY	Ass't Electrician in charge of Tests, Edison Lamp Works, Harrison, N. J.	Dec. 6, 1887
FLATHER, JOHN J.	Professor of Mechanical Engineering, Purdue University, Lafayette, Ind.	April 19, 1892
FLESCH, CHARLES	Electrical Engineer, Melbourne Australia.	Sept. 27, 1892

Name.	Address.	Date of Election.
FLOOD, J. F.	Supt. Steubenville Street Railway Co., Steubenville, O.	Mar. 18, 1890
FLOY, HENRY	168 North Ave., Allegheny, Pa.	May 17, 1892
FOOTE, ALLEN R.	Special Agent, Electrical Industries, U. S. Census, Takoma Park, D. C.	April 21, 1891
FOOTE, CHARLES W.	General Manager, The Nicholson Electric Hoist Co., 84 Champlain St., Cleveland, O.	Sept. 22, 1891
FOOTE, THOS. H.	153 John St., Bridgeport, Ct.	April 21, 1891
FORBES, FRANCIS	Lawyer, 137 Broadway, New York City.	Sept. 16, 1890
FORD, WM. S.	Assistant to Chief Engineer, The American Bell Telephone Co., Room 73, 125 Milk St., Boston, Mass.	June 7, 1892
FRANCISCO, M. J.	President and General Manager, Rutland Electric Light Co., Rutland, Vt.	June 17, 1890
FREEDMAN, WILLIAM H.	Honorary Fellow in Electrical Engineering, Columbia College, 120 West 125th Street, New York.	Mar. 18, 1890
FRENCH, E. L.	Draughtsman, Mather Electric Co., Manchester, Conn.	Dec. 16, 1890
FULLER, LEVI K.	Vice-President, Estey Organ Co., Brattleboro, Vt.	Mar. 5, 1889
GAINES, J. D.	Second Ass't. Superintendent, The Commercial Cable Co., Hazel Hill, N. S.	Oct. 21, 1890
GALE, HORACE B.	Consulting Electrical and Mechanical Engineer, 40 California St., San Francisco, Cal.	Nov. 15, 1892
GANS, JOHN L.	Superintendent and Electrician, The Electric Company, Connellsville, Penn.	June 26, 1891
GILES, WALTER A.	Engineer and Contractor, 416 Lewis Block, Pittsburg, Pa.	Nov. 1, 1887
GILLILAND, E. T.	Pelham Manor, N. Y.	April 15, 1884
GOLDMARK, CHAS. J.	473 Park Ave., New York.	June 5, 1888
GORTON, CHARLES	Civil Engineer, Belmont, N. Y.	Nov. 12, 1889
GORDON, REGINALD	Assistant in Physics, Columbia College, New York City, Residence, 76 Park Ave.	Feb. 24, 1891
GRANER, ADOLF	Electrical Patent Agent, 529 North 35th St., Philadelphia, Pa.	Feb. 16, 1892
GRAY, W. N.	Electrical Engineer, 12 Chamber of Commerce, Cincinnati, O.	Oct. 1, 1889
GREENBERG, ADOLPH G.	Salesman, Washburn & Moen M'f'g. Co., 16 Cliff St., New York City, 216½ 17th Street, Brooklyn, N. Y.	Mar. 17, 1891

Name.	Address.	Date of Election.
GROSS, S. ROSS	Electrician, Tennessee Coal, Iron & R. R. Co., Ensley, Ala.	May 17, 1892
GROWER, GEORGE G.	Electrician and Chemist, Ansonia Brass and Copper Co., Ansonia, Conn.	Mar. 18, 1890
GRIFFIN, CAPT. EUGENE	Thomson-Houston Elec. Co., 295 Commonwealth Ave., Boston, Mass.	Feb. 7, 1890
GRUNOW, WILLIAM JR.	Expert Mechanician and Manufacturer of Special Machinery and Instruments, 204 and 206 East 43d St., New York.	Jan. 19, 1892
GUTMANN, LUDWIG	Electrical Engineer, P. O. Box 118, Cleveland, O.	Sept. 14, 1888
HADLEY, WARREN B.	Supt. Wiring Dept., Edison Electric Illuminating Co., 431 Fifth Ave., New York.	June 26, 1891
HALL, EDWIN H.	Assistant Professor of Physics, Harvard College, Gorham St., Cambridge, Mass.	Sept. 3, 1889
HALL, JOHN L.	Manager, Western Union Telegraph Co., 300 Market St., Wilmington, Del.	Sept. 22, 1891
HALL, WILLIAM P.	President, The Hall Signal Co., 50 Broadway, New York City.	Sept. 16, 1890
HALSEY, WILLIAM B.	Inspector, Postal Telegraph-Cable Co., 94 Leonard St., New York.	Mar. 18, 1890
HAMILTON, WILLIAM H.	Hamilton Electrical Works, 100 State St., Albany, N. Y.	Sept. 22, 1891
HANCOCK, L. M.	Supt. of Construction, Western Electric Co., 22 Thames St., New York City.	May 19, 1891
HANDLEY, ARTHUR	Electrical Engineer, Electrical Engineering Co. of Ireland, Limited, 61 Dawson St., Dublin, Ireland.	Dec. 16, 1890
HARDING, H. McL.	Railway Dep't, Westinghouse Electric & M'f'g Co., 120 Broadway, New York City.	May 24, 1887
HARRINGTON, WALTER E.	Consulting Electric Railway Engineer, 2131 North 12th St., Philadelphia, Pa.	Mar. 17, 1891
HART, FRANCIS R.	Supt. of Construction, Mass. Electrical Engineering Co., 4 P. O. Square, Boston, Mass.	April 21, 1891
HASKINS, CARYL D.	Manager Meter Dep't., General Electric Co., 620 Atlantic Ave., Boston, Mass.	Mar. 18, 1890
HASSON, W. F. C.	Consulting Engineer, 104 Sutter St., San Francisco, Cal.	Mar. 18, 1890
HATZEL, J. C.	Electrical Engineer and Contractor, 114 Fifth Avenue, New York.	Sept. 3, 1889
HEALY, LOUIS W.	The Wightman Electric Co., 1205 Marion St., Scranton, Pa.	June 26, 1891

Name.	Address.	Date of Election.
HEILMAN, DONALD B.	Jonestown, Pa.	Mar. 18, 1890
HENRY, JOHN C.	Electrical Engineer, Westfield, N. J.	April 21, 1891
HENSHAW, FREDERICK V.	Assistant Electrician, The "C.& C." Electric Motor Co., 402 Greenwich St., New York.	Feb. 5, 1889
HERING, HERMANN S.	Associate in Electrical Engineering, Johns Hopkins University, Baltimore, Md.	April 21, 1891
HERRICK, CHARLES H.	Manager and Electrical Engineer, Wright Electrical Engineering Co. Co., 196 Summer St., Boston, Mass.	April 21, 1891
HEWLETT, EDWARD M.	Electrical Engineer, Isolated Dept. Thomson-Houston Electric Co. 65 Columbia Heights, Brooklyn, N. Y.	May 19, 1891
HIGGINS, EUGENE	Assistant Electrical Engineer, with Frank B. Rae, 27 and 28 Cleland Building, 31st St., Detroit, Mich.	April 19, 1892
HILL, GEORGE	Chief Engineer and General Manager, Carrere and Hastings, 44 Broadway, New York City.	April 19, 1892
HOCHHAUSEN, WILLIAM	Electrician, The Excelsior Electric Co., 196 Willoughby St., Brooklyn, N. Y.	April 15, 1884
HOFFMAN, SAMUEL V.	Post-graduate Student, Johns Hopkins University, Baltimore, Md.	Jan. 20, 1891
HOLCOMB, EUGENE R.	Engineering Dept., Edison Gen'l Elec. Co., Portland, Ore.	June 17, 1890
HOLMES, FRANKLIN S.	Electrical Engineer, with C. H. Davis, 120 Broadway, N. Y., 445a Macon St., Brooklyn, N. Y.	April 21, 1891
HOLT, MARMADUKE BURRELL.	Mining and Electrical Engineer, Box 1166, Denver, Col.	April 15, 1890
HOOPES, ARTHUR	Edison Electric Illuminating Co., Westchester, Pa.	April 19, 1892
HOSFORD, HENRY H.	Electrical Engineer, 84 and 86 Champlain St., Cleveland, O.	Sept. 22, 1891
HOWSON, HUBERT	Patent Lawyer, 38 Park Row, New York.	June 8, 1887
HUBRECHT, DR. H. F. R.	Director, Nederlandsche Bell Telephone Co., Amsterdam, Holland.	Oct. 4, 1887
HUFF, S. W.	General Manager, The Raleigh Street Railway Co., Raleigh, N. C.	Nov. 24, 1891
HUMPHREYS, C. J. R.	Manager, Lawrence Gas Co., Lawrence, Mass.	Sept. 6, 1887
HUNTING, FRED S.	Electrical Engineer, Fort Wayne Electric Co., Fort Wayne, Ind.	Nov. 15, 1892
IDELL, FRANK E.	Mechanical Engineer 41 Dey St., New York.	July 12, 1887
IHLDER, JOHN D.	Electrical Engineer, with Osterheld & Eickemeyer, Manuf'rs of Dynamos and Motors, Yonkers, N. Y.	Oct. 2, 1888

Name.	Address.	Date of Election.
INSULL, SAMUEL	President, Chicago Edison Co., 139 Adams St., Chicago, Ill.	Dec. 7, 1886
IVES, EDWARD B.	Lieutenant U. S. A., Electrical Engineer, 139th St. and Grand Boulevard, New York.	April 2, 1889
IZARD, E. M.	Electrical Engineer, The Electrical Engineering Co., 320 Dearborn St., Chicago, Ill.	Mar. 5, 1889
JACKSON, C. H.	President, United Electric Light and Power Co., Times Building, New York.	May 24, 1887
JACKSON, J. P.	Assistant Professor of Electrical Engineering, Penn. State College, State College, Pa.	Sept. 27, 1892
JAMES, JOHN N.	Electrician, Naval Observatory, Washington, D. C.	Feb. 16, 1892
JEFFERY, D. HERBERT	Secretary and Treasurer, Crocker-Wheeler Electric Co., 430 West 14th St., New York City.	Oct. 25, 1892
JOHNSTON, A. LANGSTAFF	Civil and Consulting Engineer in the the General Construction of Electric Railways, 1105 E. Main St., Richmond, Va.	April 21, 1891
JOHNSTON, W. J.	President, The W. J. Johnston Co., Ltd., Times Building, P. O. Box 3332, N. Y.	April 15, 1884
JONES, PROFESSOR F. R.	University of Tennessee, Knoxville, Tenn.	May 20, 1890
JUDSON, WM. PIERSON,	U. S. Civil Engineer, Oswego, N. Y.	June 8, 1887
KEEN, WILLIAM M. B. *M.D.*	85 Varick Street, New York City.	Sept. 16, 1890
KELLOGG, JAMES W.	Assistant to District Engineer, Edison General Electric Co., 140 E. 27th St., New York.	June 26, 1891
KENNELLY, A. E.	(*Vice-President.*) Electrician, Edison Laboratory, Orange, N. J.	May 1, 1888
KIMBALL, A. S.	Professor of Physics, Worcester Polytechnic Institute, Worcester, Mass.	Sept. 3, 1889
KINNEY, H. A.	917-918 Monadnock Building, Chicago, Ill.	Mar. 18, 1890
KINSMAN, FRANK E.	Electrical Engineer, Plainfield, N. J.	Sept. 27, 1892
KREIDLER, W. A.	Editor and Publisher, *Western Electrician*, 6 Lakeside Building, Chicago, Ill.	Oct. 4, 1887
LAIN, DAVID E., *B..S.*	Electrical Engineer, Yonkers, N. Y.	Nov. 13, 1888
LAND, FRANK	69 Park St., Lynn, Mass.	Sept. 22, 1891
LAUDY, LOUIS H.	Assistant in Applied Chemistry, School of Mines, Columbia College, New York City, Residence, 239 West 52d St.	Feb. 24, 1891

Name.	Address.	Date of Election.
LAW, MYRON D.	Manager Arc Light Dep't., Edison Machine Works, Schenectady, N. Y.	Feb. 7, 1888
LEDOUX, A. R.	Chemical Expert, 9 Cliff St., New York.	Dec. 7, 1886
LEE, JOHN C.	Chemist and Electrician, American Bell Telephone Co., Mountfort St., Longwood, Brookline, Mass.	Mar. 18, 1890
LEMP, HERMANN, JR.	Electrician, Thomson Electric Welding Co, Lynn, Mass.	April 2, 1889
LENZ, CHARLES OTTO	Draughtsman (Electrical), Edison General Electric Co., Box 3067, New York City.	Mar. 15, 1892
LEVY, ARTHUR B.	Assistant Engineer, Arc Light Dep't, Edison General Electric Co., 810 Lexington Ave., N. Y. C.	Jan. 20, 1891
LEWIS, HENRY FREDERICK WILLIAM,	8 Meridian Road, Redland, Bristol, Eng.	Mar. 5, 1889
LIEBIG, GUSTAV A., JR.	Elec'l Testing Bureau, Johns Hopkins University, Baltimore, Md.	Mar. 6, 1888
LITTLE, FRANKLIN P.	Manager, F. P. Little & Co., 141 East Seneca St., Buffalo, N. Y.	May 17, 1892
LLOYD, ROBERT McA.	Electrician of the Marion, N. J. Factory, United Electric Traction Traction Co., 2 W. 36th St., New York City.	Oct. 21, 1890
LOGAN, CHARLES H.	[Address unknown.]	Nov. 18, 1890
LOOMIS, OSBORN P.	Electrician, Eureka Electric Co., 530 Nostrand Ave., Brooklyn, N.Y.	Sept. 16, 1890
LOVEJOY, J. R.	Electrical Engineer, Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	April 21, 1891
LOWREY, GROSVENOR P.	Lawyer, 1 Broad St., Residence 121 Madison Ave., New York.	Nov. 1, 1887
LOZIER, ROBERT T. E.	Electrical Expert, The Edison General Electric Co., Broad Street, Box 3067, New York.	May 20, 1890
LUFKIN, HARVEY L.	General Agent, Crocker-Wheeler Electric Co, 430 West 14th St., New York.	June 17, 1890
LUNDELL, ROBERT	Electrical Engineer, Interior Conduit and Insulation Co., 44 Broad St., New York. Residence 1309 Bedford Ave., Brooklyn, N. Y.	Feb. 7, 1890
LUQUER, THATCHER T. P.	Asst. in Surveying and Practical Mining, and Student in Electrical Engineering, Columbia College, N. Y., and Bedford, N. Y.	June 26, 1891
MACFADDEN CARL K.	Chief Electric Light Inspector, Chicago & Northwestern Ry. Co., 22 Fifth Ave., Chicago, Ill.	Sept. 27, 1892

Name.	Address	Date of Election.
MACMULLAN, ROBERT HEATH,	Treasurer and General Manager, Brush Electric Lighting Co., Lafayette, Ind.	Sept. 22, 1891
MAC QUESTEN, W. D.	Electrical Engineer and Contractor, 15 Cortlandt St., New York.	April 15, 1890
MADDEN, O. E.	136 Liberty St., New York.	April 15, 1884
MAGER, LOUIS J.	Electrical Engineer, in charge of European Office of Thomson-Houston International Electric Co., Michaelisbrücke 1, Hamburg, Gy.	April 2, 1889
MAGENIS, JAMES P.	Editor the *Adams Freeman* Adams, Mass.	Sept. 27, 1892
MALCOLM, PHILIP S.	Western Agent, Gibson Electric Co., Portland, Oregon.	Mar. 18, 1890
MANSFIELD, GEO. W.	Electrical Engineer, with Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	June 2, 1885
MARKS, LOUIS B.	Washington Carbon Co., Washington, Pa., Residence, 51 East 67th St., New York City.	May 20, 1890
MARPLE, LUCIUS E.	Associate Editor, the *Street Railway Gazette*, Phœnix Building, Chicago, Ill.	Sept. 22, 1891
MARTIN, A. J.	General Supt., West End Electric Co., 1310 N. 29th St., Philadelphia, Pa.	Mar. 15 1892
MARTIN, F.	Electrical Engineer, Madison Square Garden Company, New York City.	Oct. 21, 1890
MARTIN, J.	Electrician, 16 Oak St., Newark, N. J.	Oct. 21, 1890
MARTIN, T. COMMERFORD	(*Past President.*) Editor, *The Electrical Engineer*, 203 Broadway, New York.	April 15, 1884
MARVIN, HARRY N.	Secretary and Expert, Marvin Electric Drill Co., Schenectady, N. Y.	April 19, 1892
MASON, JAMES H.	Electrician and Supt., Mason Battery and Electrical Co., 120 Park Ave., Brooklyn, N. Y.	May 19, 1891
MAYER, GEORGE M.	Mechanical Draughtsman, Electrical Department World's Columbian Exposition, Chicago, Ill.	Dec 16, 1890
MCBRIDE, JAMES	Superintendent, N. Y. & Boston Dye Wood Co., 146 Kent St., Brooklyn, N. Y.	Sept. 27, 1892
MCCARTHY, LAWRENCE A.	Western Union Telegraph Co., New York City, 1053 Bedford Ave., Brooklyn, N. Y.	Jan. 19, 1892
MCELROY, JAMES F.	Mechanical Sup't, The Consolidated Car Heating Co., 131 Lake Ave., Albany, N. Y.	Nov. 15, 1892

Name.	Address.	Date of Election
McKibbin, George N.	Chemist and Electrician, Reed & McKibbin, Consulting Electrical Engineers and Contractors, 2 Wall St., New York.	June 8, 1887
McKinstry, J. P.	185 Seneca St., Cleveland, O.	April 15, 1884
McKissick, A. F.	Professor of Electrical Engineering, The A. & M. College of Ala., Auburn, Ala.	Feb. 16, 1892
McRae Austin Lee	Professor of Physics, Missouri School of Mines, Rolla, Mo.	May 17, 1892
Mercer, Andrew G.	Treasurer and Electrician, Waterloo Electric Co., Waterloo, N. Y.	Sept. 3, 1889
Merritt, Ernest	Assistant Professor in Physics, Cornell University, Ithaca, N. Y.	Sept. 16, 1890
Meyer, Julius	Consulting Engineer, North American Co., Mills Building, New York City.	Oct. 25, 1892
Miller, Joseph A.	Civil and Consulting Engineer, 25 Butler Exchange, Providence, R. I.	Dec. 9, 1884
Miller, Wm. C.	General Manager, Watervliet Turnpike & R. R. Co., 3 South Hawk Street, Albany, N. Y.	Oct. 21, 1890
Miner, Willard M.	Electrician and Inventor, 89 East Second St., Plainfield, N. J.	July 12, 1887
Mitchell, John Murray	Lawyer, Box 3712, 45 Wall St., New York.	June 2, 1885
Mitchell, Sidney Z.	Manager, Oregon, Washington and Idaho Agency, Edison General Electric Co., Fleischner Building, Portland, Or.	Nov. 12, 1889
Mix, Edgar W.	Electrician, with Thomson-Houston International Electric Co., 7 Rue du Louvre, Paris, France.	Sept. 3, 1889
Monell, Joseph T.	With F. B. Crocker, 236 W. 22d Street, New York City.	Oct. 27, 1891
Moore, John J.	425 E. Twenty-fourth St, New York.	Nov. 12, 1889
Mordey, Wm. Morris	Electrician, Brush Electrical Engineering Co, 34 Montserrat Road, Putney, London, Eng.	Sept. 22, 1891
Morrison, J. Frank	15 South St., Baltimore, Md.	April 15, 1884
Morss, Everett.	Electrician, Simplex Electric Co., 297 Beacon St., Boston, Mass.	Sept. 22, 1891
Morton, Henry, *Ph. D*	President of Stevens Institute of Technology, Hoboken, N. J.	May 24, 1887
Moses, Dr. Otto A.	Electrician, 1037 Fifth Ave., New York.	May 17, 1887
Moss, Geo. W.	Station Manager, C. & S. A. Tel. Co., Coatzacoalcos, Mexico.	Jan. 7, 1890
Mosscrop, Wm. A. *M. E.*	Electrical Engineer, 128 Oliver St., Boston Mass.	May 7, 1889
Myers, Geo. Francis	Electrical and Mining Engineer, Penn Bldg. Pittsburg, Pa.	June 17, 1890

Name.	Address.	Date of Election.
NESMITH, S. D.	(Address unknown.)	Sept. 16, 1890
NEWELL, ARTHUR J,	Electrical Engineer, R. T. Oakes & Co., 366 High St., Holyoke, Mass.	Mar. 18, 1890
NICHOLS, ARTHUR E.	Student in Electrical Engineering, Columbia College, 16 E. 35th St., New York City.	Mar 18, 1890
NOLL, AUGUSTUS	New York Electric Equipment Co., 59 Duane St., New York City.	Sept. 27, 1892
NUNN, RICHARD J., *M. D.*	Physician, 119½ York St., Savannah Ga.	July 12, 1887
OCKERSHAUSEN, H. A.	Electrical Engineer, 65 Madison Ave., Jersey City, N. J.	Sept. 6, 1887
O'DEA, M.	Electrician, University of Notre Dame, Notre Dame, Ind.	June 8, 1887
OTTEN, DR. JAN D.	Engineer, Thomson-Houston International Electric Co., Hollmann Strasse 32v. Berlin, S. W. Germany.	Nov. 18, 1890
OWENS, R. B.	Professor of Electrical Engineering, University of Nebraska, Lincoln, Neb.	June 17, 1890
PAGE, A. D.	Assistant Manager, Edison General Electric Co. Lamp Works, Harrison, N. J.	Jan. 19, 1892
PALMER, G. W., JR.	Address Unknown.	April 15, 1890
PARCELLE, ALBERT L.	Electrician and Inventor, 157 Washington St., Boston, Mass.	Dec. 16, 1891
PARKER, HERSCHEL C.	Assistant in Physics, Columbia College, 21 Fort Green Place, Brooklyn, N. Y.	April 19, 1892
PARSELL, HENRY V., JR.	31 East Twenty-first St., New York.	Nov. 12, 1889
PAUL, CHAS. M.	Electrician, 172 Remsen St., Brooklyn, N. Y.	May 7, 1889
PEARSON, F. S.	Chief Engineer, West End Street Railway Cor, 439 Albany Street, Boston, Mass.	Oct. 25, 1892
PECK, EDWARD F.	General Sup't Citizens Electric Illuminating Co, Cor. Rockwell Place and DeKalb Ave., Brooklyn, N. Y.	May 20, 1890
PECK, SAMUEL C.	Electrician, Thomson-Houston Electric Co., 620 Atlantic Ave, Boston, Mass.	Sept 6, 1887
PEIRCE, WM. H.	Assistant Manager, Baltimore Smelting and Rolling Co., Keyser B'ld'g, German and Calvert Sts., Baltimore, Md.	Sept. 7, 1888
PERKINS, FRANK C,	209 Central Ave., Dunkirk, N. Y.	Oct. 21, 1890
PEROT, L. KNOWLES	Consulting Electrical Engineer, 308 Walnut St., Philadelphia, Pa.	Mar. 15, 1892
PERRY, NELSON W., *E. M.*,	Editor, *Street Railway Gazette*, Phœnix Building, Chicago, Ill.	May 17, 1892

Name	Address	Date of Election.
PHILLIPS, EUGENE F.	M'f'r Insulated Electric Wire, Providence, R. I.	July 13, 1889
POOLE, CECIL P.	Contracting Electrical Engineer, 812 Church St. Lynchburg, Va.	Jan. 3, 1888
POOR, CHAS. LANE	Johns Hopkins University, Baltimore, Md.	Dec. 16, 1890
POPE, RALPH W.	Secretary to the American Institute of Electrical Engineers, 12 W. 31st St., Editor *Electric Power*, 136 Liberty St., New York. Residence, 570 Cherry St., Elizabeth, N. J.	June 2, 1885
POWELL, WILLIAM H.	Manchester, Conn.	June 17, 1890
PUPIN, DR. MICHAEL I.	(*Manager.*) Instructor in Mathematical Physics, Columbia College, 68 W. 72d St., New York City.	Mar. 18, 1890
PUTNAM, H. ST. CLAIR	[Address unknown.]	Sept. 16, 1890
RANDALL, JOHN E.	Incandescent Lamp Dep't, Thomson-Houston Electric Co., 5 Vine St., Lynn, Mass.	May 7, 1889
RAY, WILLIAM D.	Electrician of Local Line of Northern Pacific R. R. Co., at Chicago, 308 Home Ave., Oak Park, Ill.	Sept. 27, 1892
READ, ROBERT H.	Patent Attorney, with Electrical Review, 13 Park Row New York City.	Jan. 19, 1892
REED, CHAS. J.	Electrician, 224 High St., Orange, N. J.	Mar. 5, 1889
REED, HENRY A.	Secretary and Manager, Bishop Gutta-Percha Co., 422 East Twenty-fifth St., New York.	June 4, 1889
REID, THORBURN	Electrical Engineer, 24 Chase St., Lynn, Mass.	Oct. 21, 1890
REILLY, JOHN C.	General Sup't, N. Y. & N. J. Tel. Co., 16 Smith St., Brooklyn, N. Y.	April 15, 1884
REINMANN, A. L.	Electrician, 45 Linden St., Brooklyn, N. Y.	June 8, 1887
REIST, H. G.	Electrical Engineer, Thomson-Houston Electric Co., 11 Baker St., Lynn, Mass.	June 17, 1890
RIKER, ANDREW L. [Life Member.]	Electrical Engineer, 737 Madison Ave., New York.	Nov. 1, 1887
ROBINSON, ALMON,	Draughtsman, Expert in Methods of Gearing, P. O. Box, 943, Lewiston, Me.	Sept. 6, 1887
RODGERS, HOWARD S.	Electrical Engineer, Eddy Electric Mfg. Co., Windsor, Conn.	Sept. 27, 1892
RODMAN, SAMUEL, JR.	Lieut. 1st Artillery, U. S. A., Auburn, R. I.	Sept. 16, 1890
ROEBLING, FERDINAND W.	Manufacturer of Electrical Wires and Cables Trenton, N. J.	June 8, 1887

Name.	Address.	Date of Election.
ROESSLER, S. W.	Captain, U. S. A., U. S. Engineer Office, Memphis, Tenn.	Dec. 3, 1889
ROGERS, EDWARD H.	Patent Lawyer, firm of Pope and Rogers, 15 Wall St., New York. City.	Sept. 22, 1891
ROGERS, WINFIELD S.	Mechanical Engineer, Estate of F. W. Richardson, 2231 5th W. Troy, Troy, N. Y.	Sept. 3, 1889
ROSEBRUGH, THOMAS REEVE	Lecturer in Electrical Engineering, School of Practical Science, 107 Mutual St., Toronto, Ont.	June 26, 1891
ROSENBAUM, WM. A.	Electrical Patent Solicitor, Care of *The Electrical World*, Times Building, New York.	Jan. 3, 1889
ROSENBERG, E. M.	The Yale and Towne Manufacturing Co., Stamford, Conn. Residence, 784 Lexington Ave., N. Y. City.	Oct. 21, 1890
ROSS, ROBERT A.	Engineer in charge of Engineering Dept., Edison General Electric Co., Petersborough. Ont.	Sept. 27, 1892
ROYCE, FRED W.	Electrician and Patent Solicitor, 1408 Pennsylvania Ave., Washington D. C.	April 15, 1884
RUTHERFORD, W. M.	Toronto Construction and Electrical Supply Co., 63 Front Street, W. Toronto, Can.	Sept. 22, 1891
RYAN, HARRIS J.	Professor of Electrical Engineering, Cornell University, Ithaca, N. Y.	Oct. 4, 1887
SACHS, JOSEPH	Electrician, The American Engineering Co., 109 World Building. Residence, 1839 Lexington Ave., New York City.	Mar. 15, 1892
SANBORN, FRANCIS N.	Manhattan Electric Lighting Co., 13 Spencer Place, Brooklyn, N. Y.	Nov. 24, 1891
SARGENT, W. D.	General Manager, N. Y. & N. J. Tel. Co., 16 Smith St., Brooklyn, N. Y.	April 15, 1884
SAWYER, FREDERICK J.	381 Boylston St., Boston, Mass.	June 8, 1887
SAXELBY, FREDERICK	Electrical Engineer, 288 Summer Ave., Newark, N. J.	June 5, 1888
SCHLOSSER, FRED. G.	Superintendent of Electric Dept., Laclede Gas Light Co., 1801 Wash St., St. Louis, Mo.	Sept. 22, 1891
SCHMID, ALBERT	Superintendent, Westinghouse Electric & Mfg. Co., Pittsburg, Pa.	Oct. 21 1890
SCHMIDT, FREDERICK	Managing Director, The Schmidt-Douglas Electric Co., L'td., 31 Blenheim Rd., Bradford, England.	Jan. 3, 1888
SCHMIDT, GIACOMO	Ass't General Manager, Richmond Light, Heat and Power Co., New Brighton, N. Y.	April 21, 1891

Name.	Address.	Date of Election.
SCOTT, CHARLES F.	Assistant Electrician, Westinghouse Electric and Mfg. Co., Pittsburg, Pa.	April 19, 1892
SEARING, LEWIS	Shepard & Searing, Mechanical and Electrical Engineers, 513 and 514 Mining Exchange, Denver, Colorado.	April 3, 1888
SEELY, J. A.	General Manager, Complete Construction Co., 10 Cortlandt St., New York.	April 15, 1884
SERRELL, LEMUEL WM.	Mechanical and Electrical Engineer, 10 Wall St., New York.	Nov. 1, 1887
SHAIN, CHARLES D.	136 Liberty St., New York City.	June 7, 1892
SHAW, EDWIN C.	General Superintendent, Thomson-Houston E. L. and P. Co., 40 Court St., Buffalo, N. Y.	May 17, 1892
SHAW, GEORGE B.	General Manager, National Electric Mfg. Co., Eau Claire, Wis.	April 15, 1890
SHEBLE, FRANKLIN	Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	Oct. 21, 1890
SHEEHY, ROBERT J.	Electrical Engineer, Equitable Mfg. and Electric Co., 24 West St. and 101 W. 76th St., New York City.	April 21, 1891
SHEPARDSON, GEORGE D.	Dep't. of Electrical Engineering, University of Minnesota, Minneapolis, Minn.	April 21, 1891
SINCLAIR, H. A.	Electrical Engineer. The Tucker Electric Co., 950 Bedford Ave., Brooklyn, N. Y.	June 17, 1890
SISE, CHARLES F.	Vice-President and Managing Director, Bell Telephone Co. of Canada, and Canadian Telephone Co., Ltd., P. O. Box 1918, Montreal, Canada.	June 8, 1887
SMITH, FRANK STUART	Supt. of Carbon Dept., Westinghouse Electric & Mfg. Co., Pittsburg, Pa.	Sept. 27, 1892
SMITH, FREDERICK H.	Civil Engineer. 227 East German St., Baltimore, Md.	Nov. 12, 1889
SMITH, GERRITT	Circuit Electrician, W. U. Tel. Co. 16 Broad St., New York.	April 15, 1884
SMITH, HAROLD BABBITT.	Adj. Prof. in charge of Electrical Engr'g Dept., Arkansas State University, Fayetteville, Ark.	Nov. 24, 1891
SMITH, J. ELLIOT	Superintendent Fire Alarm Telegraph, 122 West 73rd St., New York.	April 15, 1884
SMITH, OBERLIN	President and Mechanical Engineer, Ferracute Machine Co., Lochwold, Bridgeton, N. J.	May 19, 1891
SMITH, T. JARRARD	Manager Electrical Dep't., The E. S. Greeley & Co., 5 and 7 Dey St., New York City.	April 19, 1892
SOUZA, CARLOS MONTEIRO	e Rio de Janeiro, Brazil.	Sept. 6, 1887

Name.	Address.	Date of Election,
SPAULDING, HOLLON C.	P. O. Box 454, Exeter, N. H.	April 21, 1891
SPERRY, ELMER A.	Electrical Engineer, Sperry Electric Mining Machine Co., 39th St. and Stewart Ave., Chicago, Ill.	April 19, 1892
SPICER, CHAS. W. W.	136 W. 21st Street, New York City.	Nov. 12, 1889
SPIKE, CLARENCE J.	Halifax, N. S.	Mar. 18, 1890
SPRAGUE, FRANK J.	(*President.*) Electrical Engineer and Inventor, 182 West End Ave., Firm of Sprague, Duncan & Hutchinson, 15 Wall St., New York City.	May 24, 1887
SPRUSON, WILFRED J.	Member of the firm of Hepburn & Spruson, Consulting Engineers and Electricians, 169 King St., Sydney, Australia.	Dec. 16. 1890
SQUIER, GEORGE O.	Lieut. U. S. A., Student of Physics, Box 243. Johns Hopkins University, Baltimore, Md.,	May 19, 1891
STADELMAN, WM. A.	Vice-Prest. and Chief Engineer, Equitable Engineering and Construction Co., Drexel Building, Philadelphia, Pa.	Feb. 7, 1890
STAHL, TH.	Creusot Works, Creusot, France.	Nov. 15, 1892
STANLEY, WILLIAM, JR.	Electrician, Pittsfield, Mass.	Dec. 6, 1887
STEARNS, CHARLES K.	Sup't of Construction, N. W. Thomson-Houston Electric Co., 403 Sibley St., St. Paul, Minn.	Aug. 6, 1889
STOCKBRIDGE, GEO. H.	Patent Attorney, and Editor *Electric Power*. 136 Liberty St., New York.	May 24, 1887
STOCKLY, GEO. W.	President, Brush Electric Co., Cleveland, O. Lakewood, N. J.	April 15, 1884
STONE, CHARLES A.	Manager with E. S. Webster, Mass. Electrical Engineering Co., 4 P. O. Square Boston, Mass.	May 19, 1891
STRONG, FREDERICK G.	Lowe Gas and Electric Co., Colorado Springs, Colo.	Oct. 27, 1891
STUART, OTIS K.	Agent, Germania Electric Co., Room 21, City Trust Building, Philadelphia, Pa.	June 4, 1889
STUMP, CLARENCE E.	Vice-President and Business Manager, Street Railway Publishing Co., World Building, New York.	May 17, 1887
SULLIVAN, M. C.	Electrical Engineer, 136 Liberty St., New York City.	Dec. 16, 1890
SUMMERS, LELAND L.	Electrician, Postal Telegraph Co., 211 Phœnix Building Chicago, Ill.	Feb. 16, 1892
SWEET, HENRY N.	Chief of Patent Bureau, Thomson Electric Welding Co., 89 State St., Boston, Mass.	May 20, 1890
TABER, ROBERT B.	Gas Engineer, Special Agent Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	Sept. 16, 1890

Name.	Address.	Date of Election.
TAPLEY, WALTER H.	Electrician in Government Printing Office, Care of Public Printer, Washington, D. C.	Oct. 25, 1892
TAYLOR, CHARLES	Metallurgist, U. S. Assay Office, 30 Wall St., New York.	Nov. 1, 1887
TEMPLE, WILLIAM CHASE	Mechanical and Electrical Engineer, Lewis Block, P. O. Box 800 Pittsburgh, Pa.	May 3, 1887
TESLA, NIKOLA	(*Vice-President.*) Electrical Engineer and Inventor, The Gerlach, 55 West 27th St., New York.	June 5, 1888
THOMPSON, WILLIAM GEO.	MACNEILL, Resident Engineer, Sault Ste. Marie Canal, Sault Ste. Marie, Ontario.	July 12, 1887
TISCHENDOERFER, FRED W.	Electrical Engineer, Eickemeyer & Osterheld M'f'g. Co., Yonkers, N. Y.	April 19, 1892
TOBEY, WILLIAM BOARDMAN	The Stanley Laboratory Co., Pittsfield, Mass.	Sept. 16, 1890
TOWNSEND, HENRY C.	Attorney and Expert in Electrical Cases, 5 Beekman St., New York.	July 10, 1888
TREGONING, JOHN	32 Belmont Ave., Providence, R. I.	April 2, 1889
TROTT, A. H. HARDY [Life Member.]	Electrical Expert, with Thomson-Houston Electric Co., Lynn. Mass.	Jan. 20, 1891
TUTTLE, GEORGE W.	Storekeeper, Sawyer-Man Electric Co., 510 West 23d St., New York City.	Mar. 17, 1891
UEBELACKER, CHAS. F.	Brush Electric Co., and 1299 Euclid Ave., Cleveland Ohio.	Feb. 7, 1890
UEHLING, T. A.	179 Sawtell Ave., Cleveland, O.	May 19, 1891
UHLENHAUT, FRITZ, JR.	139 North 15th St., Philadelphia, Pa.	May 7, 1889
VAIL, THEO. N.	18 Cortlandt St., New York.	April 15, 1884
VAN BRUNT, WALTER	Manager, Duluth Telephone Co., Duluth, Minn.	Sept. 6, 1887
VAN BUREN, GURDON C.	Electrician, 5 Wilson Street, Albany, N. Y.	Oct. 25, 1892
VANCE, A. ST. CLAIR	General Superintendent, The H. Ward Leonard & Co., 136 Liberty Street, New York City.	April 2, 1889
VANDERGRIFT, JAMES A.	Assistant Supt. and Electrician, Sawyer-Man Electric Co., 534 W. 23d St., New York City.	Nov. 24, 1891
VAN TRUMP, C. REGINALD	Wilmington City Electric Co., Wilmington, Del.	Feb. 5, 1889
VAN VALKENBURGH, F. S.	906 Second St., Seattle, Wash.	June 5, 1886
VAN VLECK, FRANK	Executive Engineer, Pacific Railway Co., Los Angeles, Cal.	Nov. 16, 1886
VAN WYCK, PHILIP V. R., JR.	Room 13, 18 Cortlandt St., 127 W. 58th St., New York City.	April 21, 1892

Name.	Address.	Date of Elestion.
VARLEY, RICHARD, JR.	Electrician, Okonite Insulated Wire Co., Passaic, N. J.	Mar. 18, 1890
VERLEY, HORACE S. L.	With Dr. Wm. E. Geyer, as Laboratory Assistant, Stevens Institute, Hoboken, N. J.	May 17, 1892
VIDUARRE, JOSE	Dealer in Electrical Supplies, Ponce, Porto Rico.	Sept. 6, 1887
WACKER, GEORGE G.	Electric Organs, 3644 Third Ave., New York.	Sept. 6, 1887
WALLACE, GEO. S.	Telegraph Office Manager, Chesapeake & Ohio Ry. Co , Box 214, Clifton Forge, Va.	Oct. 25, 1892
WALLACE, WILLIAM	Wire Manufacturer, Ansonia, Conn.	April 15, 1884
WALTER, HENRY E.	3 Princes Mansions, Victoria St., London, Eng.	April 2, 1889
WARDELL, GEORGE P.	19 Cedar St., Newark, N. J.	Nov. 12, 1889
WARING, RICHARD S.	Standard Underground Cable Co., 61 Westinghouse Bldg., Pittsburg, Pa.	April 15, 1884
WARING, JOHN	Consulting Electrician, The Perkins Electric Lamp Co., Manchester, Conn.	Dec. 16, 1890
WASON, CHAS. W.	Electrical Engineer, East Cleveland R. R. Co., 1154 Euclid Ave., Cleveland, O.	May 19, 1891
WATERHOUSE, FRANK G.	Room 6, No. 302 Asylum St., Hartford, Conn.	Sept. 6 1887
WATERHOUSE, LAWRENCE MAXWELL,	Consulting and Practical Electrical Engineer, 16 St. Michael's Place, Brighton, Eng.	April 19, 1892
WATERS, EDWARD G.	Electrical Engineer, Thomson-Houston Electric Light Co , German National Bank Building, Pittsburg, Pa.	Mar. 18, 1890
WATSON, ROBERT	The Elektron M'f'g. Co., 89 Liberty St., New York City.	Oct. 21, 1890
WATTS, H. FRANKLIN.	Electrical Engineer, 633 Chapel St., Schenectady, N. Y.	May 20, 1890
WEAVER, NORMAN R.	Supt. of Repair Department, General Electric Co., 173-5 Adams St , Chicago, Ill,	Oct. 25, 1892
WEBSTER, DR. ARTHUR G.	Docent in Physics, Clark University, Worcester, Mass.	Jan. 19, 1892
WEBSTER, EDWIN S.	Mass. Electric Engineering Co., 4 P. O. Square, Boston, Mass.	April 21, 1891
WESSELS, EDWARD J.	New York Agent, The Short Electric Railway Co., 35 Wall St., New York City.	Mar. 15, 1892
WELLES, FRANCIS R,	Manufacturer, Bell Telephone Manufacturing Co., Antwerp, Belgium.	Sept. 6, 1887
WELLS, DOUGLAS	Hurstfield Ave., Gipsy Hill, London, Eng.	June 7, 1892

Name.	Address.	Date of Election.
WHITE, GEO. MONTAGU	Agent for West Indies, Thomson-Houston International Electric Co., Kingston, Jamaica, W. I.	Sept. 22, 1891
WHITE, H. C.	Manager, Phœnix Iron Works Co., 15 Cortlandt St., New York.	April 15, 1884
WHITE, J. G.	J. G. White & Co., Electrical Engineers and Contractors, 29 Broadway New York City.	April 2, 1889
WHITE, WILL F.	Electrical Engineer, Sec'y and Treas. Western Engineering Co., 415 So. 15th St., Omaha, Neb.	Feb. 7, 1890
WHITMORE, W. G.	Electrical Engineer, Edison General Electric Co., Edison Building, Box 3067, New York City.	Mar. 18, 1890
WHITNEY, HENRY M. [Life Member.]	President, West End Street Railway Co., 81 Milk St., Boston, Mass.	July 12, 1887
WIGHTMAN, MERLE J.	Vice-President and Electrician, The Wightman Elec. Mfg. Co., 4 Commonwealth Bldg., Scranton, Pa.	Mar. 5, 1889
WILEY, WM. H.	Scientific Expert, 53 East 10th St., New York.	Feb. 7, 1888
WILLIAMS, ARTHUR S.	53 Devonshire St., Boston, Mass.	Nov. 24, 1891
WILLIAMS, CHARLES, JR.	Electrician, 100 Sudbury St., Boston, Mass.	April 15, 1884
WILLIAMS, JAMES B. *M. D.*	44 Broadway, Room 60, and 120 West 57th St., New York.	Sept. 7, 1888
WILLYOUNG, ELMER G.	Electrician, James W. Queen & Co., 924 Chestnut Street, Philadelphia, and Ardmore, Pa.	Nov. 24, 1891
WINKLER, CHARLES F.	Electrician, Troy Electric Dynamo Co., 4 Park Ave., Troy, N. Y.	Sept. 3, 1889
WINSLOW, I. E.	Manager, Roundhay Electric Tramway, 146 Roundhay Road, Leeds, Eng. Address, 457 Produce Exchange, New York.	Nov. 12, 1889
WINTRINGHAM, J. P.	Theorist, 36 Pine St., New York.	May 7, 1889
WIRT, CHARLES.	(*Manager.*) Electrical Engineer of the Electrical Supply Co., 102-104 Michigan Ave., Chicago, Ill.	Sept. 8, 1888
WIRT, HERBERT C.	Electrician, Marine Dept. Thomson-Houston Electric Co., 12 Millmont St., Roxbury, Mass.	June 26, 1891
WOLVERTON, B. C.	Electrician, N. Y. & Pa. Telephone & Telegraph Co., Elmira, N. Y.	Mar. 18, 1890
WOOD, E. J.	Consulting Engineer and Contractor, 243 Broadway, New York.	July 12, 1887
WOODRUFF, H. O.	Manager, Sioux City Electric Co., Sioux City, Iowa.	Oct. 2, 1888
WOODWARD, FRANCKE L.	Student in Electricity, 13 Kirkland Place, Cambridge, Mass.	June 26, 1891

Name.	Address.	Date of Election.
WOOLF, ALBERT E.	Electrician and Inventor, Woolf Electrical Co., 110 Pearl St. and 864 Lexington Ave., New York City.	Sept. 16, 1890
WRIGHT, JOHN D.	[Present Address Unknown.]	Oct. 21, 1890
ZALINSKI, EDMUND L.	Captain of Artillery, U. S. A., Care of War Dept., Washington, D. C.	May 17, 1887

Associate Members, - - - 448.

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Members,	195
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Vol. V, 1887-8.

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Vol. VI, 1889.

[Including October, November December, 1888.]

THE GEYER-BRISTOL METER FOR DIRECT AND ALTERNATING CURRENTS. [Illustrated.] Prof. William E. Geyer. THE ABDANK MAGNETIC CALL AND THE ABDANK INTEGRAPH. [Illustrated.] E. Abdank-Abakanowics. No. 1, January, 1889. SIX YEARS PRACTICAL EXPERIENCE WITH THE EDISON CHEMICAL METER. (Illustrated.) W. J. Jenks . . ebruary, 1889. LIGHTNING ARRESTERS AND THE PHOTOGRAPHIC STUDY OF SELF-I . . N. (Illustrated.) E. G. Acheson... No. 3, March, 1889. A NEW SYSTEM OF MULTIPLEX TELEGRAPHY. (Illustrated.) Lieut. F. Jarvis Patten. LIGHTNING ARRESTERS AND THE PHOTOGRAPHIC STUDY OF SELF INDUCTION. Notes by Jo. Stanford Brown and Chas. T. Child. REPLY TO THE NOTES OF MESSRS. BROWN AND CHILD BY E. G. Acheson. No. 4, April, 1889. THE EFFICIENCY OF METHODS OF ARTIFICIAL ILLUMINATION. Illustrated. Edward L. Nichols. No. 5, May, 1889. SOME RESULTS WITH SECONDARY BATTERIES IN TRAIN LIGHTING. (Illustrated.) Alexander S. Brown. THE INHERENT DEFECTS OF STORAGE BATTERIES. (Illustrated.) DR. Louis Duncan. ELECTRIC MOTOR REGULATION. (Illustrated.) Francis B. Crocker. Nos. 6 and 7, June and July 1889. (Double Number). MAGNETISM, ITS RELATION TO INDUCED ELECTROMOTIVE FORCE AND CURRENT. (Illustrated.) Prof. Thomson of Lynn, Mass. ON THE RELATION BETWEEN THE INITIAL AND THE AVERAGE EFFICIENCY OF INCANDESCENT LAMPS. (Illustrated.) W. H. Peirce of New York. THE EFFICIENCY OF THE ARC LAMP. (Illustrated.) H. Nakano, of Japan, with an introductory note by Prof. Nichols. THE SPIRAL COIL VOLTAMETER. (Illustrated.) Harris J. Ryan, of Ithaca, N. Y. A PERSONAL ERROR IN PHOTOMETRY. (Illustrated.) Prof. Edward L. Nichols, of Ithaca, N. Y. ON MODERN VIEWS WITH RESPECT TO ELECTRIC CURRENTS. (Illustrated.) Prof. Henry A. Rowland, of Baltimore, Md. CLASSIFIED LIST OF MEMBERS. Nos. 8 and 9, August and September, 1889. (Double Number.) No. 10, October, 1889. SOME RECENT ELECTRICAL WORK ON THE ELEVATED RAILROADS. (Illustrated.) Leo Daft, of Plainfield, N. J. ALTERNATING CURRENT MOTORS: THE EVOLUTION OF A NEW TYPE. (Illustrated.) Lieut. F. Jarvis Patten, of New York. No. 11, November, 1889. ELECTRICAL NOTES OF A TRANS-ATLANTIC TRIP. Thomas D. Lockwood, of Boston, Mass. SOME METHODS OF REGULATING ACCUMULATORS IN ELECTRIC LIGHTING. (Illustrated.) George B. Prescott, Jr., of New York. No. 12, December, 1889. FORM AND EFFICIENCY OF INCANDESCENT FILAMENTS. Charles J. Reed of New York. TELEGRAPH LINE ADJUSTMENT.—NOTE ON A NEW GRAVITY CELL. P. B. Delany of New York.

Transformers. (Illustrated.) Harris J. Ryan. No. 3, January, 1892. A System of the Modern Theories of Electricity. (Illustrated.)—Prof. W. A. Anthony. No. 4, February, 1892. The Practical Working of the Electrical Subways of New York City. (Illustrated.) William Maver, Jr. No. 5, March, 1892. Experiments with Alternating Currents of High Potential and High Frequency. (Illustrated.) Dr. Louis Duncan and W. F. C. Hoxie. No. 6, April, 1892. Phenomena of Alternating Current Induction. (Illustrated.) Prof. Elihu Thomson. Electricity in the Navy. Gilbert Wilkes. No. 7, May, 1892. Electric Lighting in the Tropics. Wilfrid H. Fleming. Life and Efficiency of Arc Light Carbons. (Illustrated.) Louis B. Marks. Practical Aspects of the Alternating Current Theory. No. 8, Pupin. Magnetic Data of the Sprague Surface Car Motor. (Illustrated.) H. F. Parshall. The Industrial Utilization of Water Power. (Illustrated.) Prof. George F. Swain. No. 9, June and July. (Double Number.) Life and Efficiency of Arc Light Carbons. Discussion. (Illustrated.) Practical Aspects of the Alternating Current Theory. Discussion. Note on a New Photometer. (Illustrated.) Dr. Edward L. Nichols of Ithaca, N. Y. The Limitations of Steam and Electric Transportation. (Illustrated.) Oscar T. Crosby, now of New Orleans. Automatic Electric Welding Machines. Hermann Lemp, Jr., of Lynn, Mass. No. 10, August and September. (Double Number.) Efficiency of Transformers. (Illustrated.) Calvin Humphreys and W. H. Powell. Notes with some Experiments with Alternating Current Apparatus. (Illustrated.) Prof. Harris J. Ryan. Catalogue of Membership. Revised to November 1st, 1892. No. 11 October. Preliminary Report of the Standard Wiring Table Committee. Resolutions on Adoption of American Names for Electrical Units. Investigation of the Stanley Alternate Current Arc Dynamo. W. B. Tobey and G. H. Walbridge. A New Method of Analyzing Armature Reactions, Applied to the Stanley Arc Light Alternating Current Machine. Thorburn Reid. No. 12 November. Revised Report of the Standard Wiring Table Committee. The Theory of Compound Wound Dynamos. (Illustrated.) Dr. Louis Bell. (Illustrated.) Dr. Louis Bell, of New York. A New Method of Analyzing Armature Reactions of Alternators. Charles Steinmetz, of Yonkers, N. Y. List of New Associate Members. Elected Sept. 16th, Oct. 21st, Nov. 18 and Dec. 16th. No. 12 December.

Vol. VIII. 1891.

Inductance, and its Proposed Unit, the "Henry." (Illustrated.) By A. E. Kennelly. The Improved Gramophone. (Illustrated.) By Emile Berliner. No. 1, January, 1891. Inductance, and its Proposed Unit, the "Henry." Report of Committee on Valuation of the Henry. Joint Discussion. No. 2, February, 1891. Report of High Speed Electric Railway Work. (Illustrated.) By O. T. Crosby. The Inventions of Thomas Davenport. (Illustrated.) By Franklin Pope. No. 3, March, 1891. Inductive Disturbances in Telephone Circuits. (Illustrated.) By J. J. Carty. No. 4, April, 1891. Electricity in the Production of Aluminium. (Illustrated.) By Alexander S. Brown. Some Possible Modifications in the Methods of Protecting Buildings from Lightning. By N. D. C. Hodges. No. 5, May 1891. Reports of Council and Treasurer. Officers Elected. The Perfection of Stationary Electric Motors. (Illustrated.) By Lieut. R. Crocker. A Photographic Study of the Electric Arc. (Illustrated.) By Edward L. Nichols. A New Graphical Method of Calculating Leads for Wiring. (Illustrated.) By Carl Hering. A Theoretic Electric Method of Studying Steam Cylinder Condensation in Steam Engines. (Illustrated.) By Edwin H. Hall. The Practical Aspects of Electric Welding. By Frederic A. C. Perrine. Experiments with Alternate Currents of Very High Frequency. (Illustrated.) By Nikola Tesla. Nos. 6 and 7, June and July, 1891. An Alternate Current Potentiometer. (Illustrated.) By Geo. S. Moler. Considerations Which Should Govern the Selection of Water Wheels for Electric Service. By F. Bruce Sanborn. The Meter. By Cox. W. Walker. A Study of an Open Coil Arc Dynamo. (Illustrated.) By Milton E. Thompson. The Future of the Aluminium Problem from the Chemical Standpoint. By Wm. H. Wahl. Shall "Aluminum" be "Alum" By Oberlin Smith. Notes on Electricity in Mining Work. (Illustrated.) By Sydney F. Walker. Nos. 8 and 9 August and September. On the Relation of the Air Gap and the Shape of the Poles to the Performance of Dynamo Electric Machinery. (Illustrated.) By Charles P. Steinmetz. No. 10, October. Magnetic Reluctance. (Illustrated.) By A. E. Kennelly. Report of Committee on Units and Standards. Report of Delegation to Frankfort International Electrical Congress. No. 11, November, 1891. Notes on the Frankfort Electrical Exhibition. By Carl Hering. On Polyphasal Generators. (Illustrated.) By M. I. Pupin. Catalogue of Members and Publications, December, 1891.

Vol. IX. 1892.

On the Law of Hysteresis. (Illustrated.) By Charles P. Steinmetz. No. 1, January, 1892. A Proposed System of Alternating-Direct Current Transformation. (Illustrated.) By Lieut. F. Jarvis Patten. Note on the Molecular Movement in a Conductor. (Illustrated.) By A. E. Dolbear. No. 2, February, 1892. Lightning Arresters and the Discovery of Non-Arcing Metals. (Illustrated.) By Alexander J. Wurts. No. 3, March, 1892. Methods of Electric Distribution. (Illustrated.) By Lieut. F. Jarvis Patten. No. 4, April, 1892. Reports of Council and Treasurer. Officers Elected. Obituary, Charles J. Van Depoele. Note on Some Experiments with Alternating Currents. (Illustrated.) By Louis Duncan. Rational and Empirical Formulæ Showing the Relation Between the Magnetomotive Force (M) and the Resulting Magnetization (B). (Illustrated.) By Charles P. Liberty. A Dynamo Indicator, or Instantaneous Curve-Writing Voltmeter. (Illustrated.) By Joseph B. Mosher. Current Distribution by Means of Elevated Conductors. By Frank J. Sprague. The Magnetic Permeability of Special Irons for Electrical Purposes. (Illustrated.) By Milton E. Thompson. Notes on Wiping Contact Methods for Current and Potential Measurements. (Illustrated.) By Benj. F. Thomas. A Life and Efficiency Test of Incandescent Lamps. (Illustrated.) By Benj. F. Thomas. Some Points for the Electrical Engineer. By Horatio A. Foster. Nos. 5 and 6, May and June, 1892. Circuits Containing Resistance, Self-Induction and Capacity. (Illustrated.) By Frederick Bedell. By Carl C. Crehore. Electricity in Bituminous Mining. (Illustrated.) By Elmer A. Sperry. The Electric Percussion Drill in Theory and Practice. (Illustrated.) By Harry N. Marvin. Long Distance Transmission for Lighting and Power. (Illustrated.) By Charles F. Scott. Railway Train Lighting. By A. H. Bauer. Report of Committee on Revision of Rules. Electro-Technical Education. By R. B. Owens. The Technical Education of the Electrical Engineer. By D. C. Jackson. A New Rheostat. (Illustrated.) Constant Potential Motor in the Electrolytic Refining of Copper. (Illustrated.) By F. B. Badt. Selective or Individual Signals. (Illustrated.) By T. D. Lockwood. Series Electric Traction. (Illustrated.) By S. W. Perry. A New System of Electric Propulsion. (Illustrated.) By H. Ward Leonard. Electric Railway Motor Tests. (Illustrated.) By Geo. D. Shepardson and R. F. Burch. The Reversal of Polarity of Plating Dynamos. By E. J. Ryan. On vs. Ab as an Irreducible Electrical Unit. By a Relation Between the Electromotive Force of a Galvanic Cell, and the Intensity of the Zone Solutions Bounding. (Illustrated.) By C. A. Carlson, Nos. 7 and 8, July and August, 1892.

AMERICAN INSTITUTE

OF

ELECTRICAL ENGINEERS.

FOUNDED 1884.

HISTORICAL SKETCH OF ITS ORGANIZATION AND WORK.

CATALOGUE OF MEMBERS AND PUBLICATIONS,

June 1st, 1892.

EXECUTIVE OFFICES:

12 West 31st St.,

NEW YORK CITY.

1892.

Extracts from the Rules of the American Institute of Electrical Engineers, as Amended December 8th, 1885.

MEMBERSHIP.

The Institute shall consist of Members, Honorary Members, and Associates.

Members shall be Electrical Experts, Electricians, or Electrical engineers, possessing such knowledge of the principles of Electrical Science, and such familiarity with the practical applications of electricity in its several branches as those branches imply.

Honorary Members shall be recommended by at least ten members or associates, and elected by the unanimous vote of the Council, but shall not be entitled to vote or serve as members of the Council.

Associate Members shall be such persons as are or have been connected with the utilization of electricity, or who by means of study or experimental investigation, are qualifying themselves to become identified with electrical science, and such others to whose admission no objection shall be made by any member of the Council.

Proposals for admission shall be endorsed by at least three members or associates, and referred to the Council, which shall have power to elect to Associate Membership only.

All members and associates shall be equally entitled to the privileges of membership.

Transfers from associate membership to membership may be made by the Council upon application, subject to the approval of a Board of Examiners, which shall have the power from time to time to provide rules to test the qualifications of applicants. Such rules must be approved by the Council. Any person rejected by the Board shall have the right of appeal first to the Council, and finally to any meeting of the Institute.

DUES.

The entrance fee shall be five dollars for each person. The dues of members and associates shall be ten dollars per annum, payable in advance, at the annual meeting; except that new associate members elected, shall pay in advance *pro rata*, from the first of the month of their election until the next annual meeting. Honorary members shall not be liable to fees and dues. Any member or associate may become, by the payment of one hundred dollars at any one time, a life member or associate, and shall not be liable thereafter to annual dues. The dues of members residing in foreign countries –beyond the seas—shall be five dollars per year, but such members shall have no vote for election of members.

In 1884, the American Institute of Electrical Engineers was organized in New York City, with the following purpose as stated in the rules:

"The objects of the American Institute of Electrical Engineers are to promote the Arts and Sciences connected with the production and utilization of electricity, and the welfare of those employed in these industries; by means of meetings for social intercourse, the reading and discussion of professional papers, and the circulation, by means of publications among its members and associates, of the information thus obtained."

Receiving prompt and hearty support at the outset, it has by more frequent meetings and the gradual acquisition of the best electrical talent in the country, now reached that stage so essential to the success of an engineering society, where no electrical engineer who desires to keep abreast with the times can afford to remain outside of its ranks. Nearly all of the papers which have been read before the Institute since 1886 have been published in most of the electrical journals in America, and some of the more important have appeared abroad. Those published by the Institute, form a most complete history of the whole line of recent electrical development. The discussions of these papers are, however, to be found complete only in the Institute Transactions, which are published monthly.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.

Historical Sketch of its Organization and Work.

A preliminary meeting of the founders of the American Institute of Electrical Engineers was held in New York City, April 15, 1884, in response to a call which had been very generally circulated and signed by gentlemen of prominence in electrical circles.

The following is an extract from the circular of information regarding the scope of the proposed society:

> An International Electrical Exhibition is to be held in Philadelphia next autumn, to which many of the famous foreign electrical savants, engineers and manufacturers will be visitors; and it would be a lasting disgrace to American electricians if no American National Electrical Society were in existence to receive them with the honors due from their co-laborers of the United States. It is proposed to organize the American Institute of Electrical Engineers, somewhat after the model of the American Civil, Mechanical and Mining Engineers' societies or institutes.

At a subsequent meeting, held May 13, 1884, a permanent organization was effected and the following officers elected:

President,

DR. NORVIN GREEN.

Vice-Presidents,

PROF. A. GRAHAM BELL,
THOMAS A. EDISON,
CHARLES H. HASKINS,
PROF. CHAS. R. CROSS,
GEORGE A. HAMILTON,
FRANK L. POPE.

Managers,

CHARLES F. BRUSH,
STEPHEN D. FIELD,
PROF. EDWIN J. HOUSTON,
FRANK W. JONES,
W. W. SMITH,
THEODORE N. VAIL,
WILLIAM H. ECKERT,
PROF. ELISHA GRAY,
M. L. HELLINGS,
GEORGE B. PRESCOTT,
PROF. W. P. TROWBRIDGE,
EDWARD WESTON.

Treasurer,

ROWLAND R. HAZARD.

Secretary,

NATHANIEL S. KEITH

By an Act of Congress, approved July 7, 1884, the President of the United States was authorized to appoint a scientific commission which might, in the name of the Government, conduct a National Conference of electricians in Philadelphia in the autumn of that year. The act further provided that the commission thus appointed might invite scientific men, native and foreign, to participate in the Conference, and to determine the general character and scope of its work.

In pursuance of the provisions of the act, President Arthur appointed the following distinguished scientists: Professors Henry A. Rowland, Monroe B. Snyder, George F. Barker, Simon Newcomb, C. F. Brackett, J. Willard Gibbs, Edwin J. Houston, John Trowbridge, F. C. Van Dyck and Charles A. Young, and Mr. R. A. Fisk and Dr. William H. Wahl as members of the United States Electrical Commission.

Invitations were accordingly extended by Prof. George F. Barker, Secretary of this Commission, to a large number of electricians in Europe and America, of whom about one hundred were in attendance at the Conference which assembled September 8 and adjourned September 13, 1884. The proceedings of this Conference, making a pamphlet of 183 pages, were subsequently published by the Government as a public document.

The following is an extract from the minutes of the closing session:

THE PRESIDENT:—The question has been raised as to whether we shall hold any further meetings of this Conference. It seems to me that the occasion for it will almost have passed away. The occasion of the Conference has been the Electrical Exposition of the Franklin Institute and the presence in this city of the members of the British and American Associations, so that altogether we have had a body of distinguished men, such as we could seldom get together. But some have expressed the feeling that there must be something further for the Conference to do. If any member of the Conference has anything to suggest on this point it can be presented now. Is it desired that any further meetings should be held?

PROFESSOR ABBE:—I only express the opinion of a great many here when I say that we all agree to what has been suggested. We need very much a meeting of this kind frequently in order to exchange ideas. I am not an electrician, either professionally or practically, and it hardly becomes me to say what they need, but I can see how lively and how agreeable these meetings are. I very much hope that some means may be taken to call us together occasionally, perhaps by ourselves, perhaps by a committee.

PROFESSOR ROWLAND:—I do not suppose that we could be called together officially, except it be done within a short time. Although the law is very broad under which this meeting of the Conference has been held, we could not construe the law to make this Conference into an electrical society; that would be impossible. If within a short time a meeting is desired, I suppose that it may be called under the present law.

MR. KEITH:—Pertinent to that subject I would like to say a few words. Early last spring, this exhibition being contemplated, and it being desired that the electricians should assemble themselves together in an organized body, some gentlemen in New York issued circulars to various electricians and professional men throughout the country with the stated object of forming a society. Such a society was formed last May, and the proceedings of that meeting were published, and have been circulated to some considerable extent. The membership has risen to 283. This society will meet here in Philadelphia on the 7th, 8th and 9th of October. A number of members of

the Conference are also members of this society. It is called "The American Institute of Electrical Engineers."

I shall take the liberty of sending to members of this Conference copies of the rules and minutes of the meetings held so far, so that they may become informed as to the standing of this society, and if it seems desirable to anyone that is not now a member he will be gladly welcomed into the society. We want to make it a useful institution, and make it large and financially strong as well as intellectually strong; if not financially strong it certainly will not be intellectually, because finances support intelligence.

The Directors of the International Electrical Exhibition, held in Philadelphia in 1884, kindly tendered to the Institute the free use of rooms in the Exhibition Building, which were accepted by Council, and the rooms were opened to members September 2d, and continued until October 11th, during which time they were visited by a great many members of the Institute and by several foreign electricians

On October 7th and 8th the first meeting of the Institute for the reading and discussion of professional papers was held at the Continental Hotel and the Exhibition Rooms, at which eleven papers were read, and upon invitation of the Franklin Institute the Exhibition was inspected by the members in a body.

The subsequent history of the Institute is well known. After the holding of two or more annual meetings in New York, records of which have been printed in the TRANSACTIONS, the experiment of monthly meetings was begun, in accordance with suggestions made at the annual meeting in May, 1885, by Acting Secretary Martin, followed in May, 1886, by his successor, as will be seen by the following extract from the Secretary's report, submitted to the Institute:

The importance of the various electrical problems which are continually being brought to public notice points to the advisability of holding monthly meetings for the discussion of current topics. There are in New York and vicinity a sufficient number of members to make such meetings successful, especially if those who are capable and have had ample electrical experience will perform their duty in the preparation of suitable papers for presentation on such occasions. I can see no reason why such a gathering might not be held monthly in conjunction with the regular meetings of Council under existing arrangements. It also appears probable that if suitable arrangements were made for reporting the proceedings of these meetings many important electrical papers would be brought before the Institute which are now presented to other societies, although perhaps entirely foreign to their special field. This is largely the result of a popular interest in electrical researches now existing, which we should avail ourselves of to stimulate the growth of the Institute.

With the inauguration of such a policy as I have outlined, your Secretary will feel far better satisfied with his work, and the existence of the Institute will gradually become known, and properly appreciated by those for whose benefit it was founded.

The first of these meetings, which may be said to have awakened new interest in the welfare of the Institute, was held June 8, 1886, in the Mills Building, 15 Broad street, and was preceded by an informal dinner. The meeting was called to order by President Franklin L. Pope, who in announcing the subject of dis-

cussion, "Incandescent Lighting from Central Stations," made the following remark:

> It gives me very much pleasure to see so large an attendance on this occasion, the first of our monthly meetings, and it affords us excellent encouragement as to what we may expect in the future.

In the autumn of the same year (1886) these monthly meetings were resumed and have continued regularly since that time, being omitted during the summer months. These monthly meetings have been held in New York City, for the reason that a sufficient number of members can always be depended upon to prepare and discuss professional papers.

The General Meeting of 1890 was held at Boston, May 21st, the membership in that city and vicinity having become sufficiently large to warrant its success. The occasion will long be remembered by those who were present, and it appears probable that hereafter, by the judicious selection of location, the May meetings of the Institute may be held each year at different cities in the country.

Having become fairly established as the national electrical organization of America, it was deemed proper that the Institute should take active steps towards identifying itself with international work, thereby securing proper recognition for the important researches of Americans, which had hitherto been ignored, simply because no organized body representing this country had participated in the International Congresses of Europe.

Such a Congress was held in Paris in 1889, in connection with the International Exposition. As it was then supposed that a World's Fair would be held in America in 1892, the Council suggested that an International Congress should be convened at that time. With this purpose in view, the following delegates were appointed who attended the Paris Congress:

THOMAS A. EDISON, CARL HERING,
JOSEPH WETZLER, E. WILBUR RICE, JR.,
NIKOLA TESLA.

Their presence at the Congress was recorded in the official proceedings.

In August, 1889, the following committee was appointed by President Elihu Thomson to make preparations for the proposed International Congress in America:

W. A. ANTHONY, C. O. MAILLOUX,
CHAS. R. CROSS, T. C. MARTIN,
G. A. HAMILTON, HENRY MORTON,
CARL HERING, GEORGE M. PHELPS,
C. H. HASKINS, F. L. POPE,
E. J. HOUSTON, R. W. POPE,
T. D. LOCKWOOD, EDWARD WESTON,
S. S. WHEELER.

The postponement of the date of the World's Fair until 1893, and the holding of an International Congress at Frankfort in 1891, rendered it unnecessary to take any further steps in this direction, beyond taking advantage of the coming Frankfort Congress to renew the invitation to hold an International Congress in America.

On December 3, 1889, the Council appointed a Committee of Eleven "to formulate and submit for approval a standard wiring table for lighting and power purposes." This committee submitted a preliminary report which was discussed at the monthly meeting of the Institute, September 16, 1890, when certain amendments were suggested which were embodied in a revised report, submitted November 18, 1890, which was ordered printed, that distant members might be afforded an opportunity to criticize it.

At the meeting of Council, held June 17, 1890, the following resolutions were referred to a meeting of the Institute and came up for action September 16, 1890:

Whereas, It has been the custom in the nomenclature of electrical units to perpetuate the names of men who have contributed most to electrical science; and,

Whereas, In the names thus far adopted the eminent services of Americans have not been recognized; therefore,

Resolved, That in the opinion of the American Institute of Electrical Engineers a just distribution of the honors thus bestowed necessitates a recognition of the splendid contributions to electrical science of one or both of America's great electricians—Benjamin Franklin and Joseph Henry; and,

Resolved, That this Institute will gladly co-operate with other bodies in this country and abroad to secure the general adoption of these names for electrical units; and,

Resolved, That the name of Henry should be given to the practical unit of self-induction, since he was the discoverer and greatest investigator of this phenomenon, and because this unit at present is called a quadrant, which is merely a numerical value and not a suitable name.

Resolved, That this Institute recommend to electrical societies and electrical engineers the general use of the name Henry for the unit of induction as being the quickest and surest way to secure its final adoption.

These resolutions were subsequently amended in accordance with the following suggestion:

MR. F. L. POPE:—It seems to me that the ultimate disposition we ought to make of this matter is to refer it to the International Electrical Conference, with our recommendation that the name "Henry" be given to the practical unit of self-induction and our recommendation of a certain value. It does not seem to me that we can settle this thing all by ourselves. The rest would like at least to be consulted about it. I think if it were referred to them in that way there is very little doubt they could adopt it.

Upon the receipt of an invitation extended by the management of the Frankfort International Congress of 1891 to the American Institute of Electrical Engineers, to take part in its deliberations, the Institute, at the general meeting May 21st, authorized the Chair to appoint five delegates to attend the Congress, and the following delegation was subsequently appointed:

MR. CARL HERING, Chairman,
DR. EDWARD L. NICHOLS, MR. NIKOLA TESLA,
PROF. RICHARD O. HEINRICH, MR. LUDWIG GUTMANN.

In his report to the Council, at its meeting October 27, 1891, Vice-President Carl Hering, Chairman of the Delegation, submitted his official report, which was accepted and ordered printed in the TRANSACTIONS. In this report it is stated that the delegation concluded to bring up two or three matters which had occupied the attention of the Institute, namely:

The adoption of the name "Henry" and a normal value for the resistance of copper, and in addition suggested the adoption of a practical unit of magnetism. These they concluded were the most important questions to be brought up at this Congress. They prepared a short announcement of these propositions (in German) in the name of the American Institute of Electrical Engineers, and had it printed in full in one of the daily programmes, which were distributed among all the members; a place was also assigned to this matter at the second general session, September 10th, as announced on this notice, which appeared two days before.

The substance of the propositions, as announced, was as follows:

1. That the American Institute of Electrical Engineers had adopted the name "Henry" for the name of the practical unit of induction, and that we propose that this Congress formally adopt the name. This was followed by an explanation of the value of this unit, why this name was preferred to the word "quadrant," and why it was named after Prof. Henry.
2. That this Congress ought to adopt a name and value for a practical unit of the intensity of magnetism. To open a discussion we proposed the name "Gauss" and a value of 1,000 lines per square centimeter, or 10.3 absolute units.
3. That it would be desirable to adopt a normal value for the resistance of copper to facilitate relative comparisons for commercial purposes. To this we added that we wished merely to agitate this question here, in order that any preliminary tests to determine such a value may be made between now and the next Congress, so as to facilitate its adoption at that Congress.
4. The announcement closed with an invitation to the members of this Congress, on the part of the American Institute of Electrical Engineers to participate in the next International Congress, to be held under the auspices of this Institute in Chicago, in 1893, (at that time your delegates were not informed that this coming Congress was in the hands of a committee of the World's Fair).

Although these propositions were not adopted, chiefly on account of lack of time, the effect of making them has prepared the way for their adoption at the next Congress. Mr. Hering suggests that the Institute profit by this experience, and that, as the leading American electrical society, it ought to take the lead in the matter of establishing and naming practical magnetic units and other similar international matters, by considering the subject now at their meetings, making propositions, publishing them in domestic and foreign journals, inviting the aid and criticism of foreign electricians and societies, and in this way prepare for

their final settlement at the next Congress. A Congress is hardly the place to start a discussion on such matters; it is the place to finally settle a discussion which should precede it in the societies and journals of the leading nations.

The adjournment of the Frankfort Congress, to meet in Chicago in 1893, was considered as settling the fact that an International Electrical Congress was to be held at that time, and it therefore seemed proper that the Institute should proceed with its preparatory work with this end in view, it having had the advantage of experience in the deliberations of two such bodies, while a large number of its members had also participated in the National Electrical Conference at Philadelphia in 1884, already referred to. The Committee on the International Electrical Congress of 1893 accordingly met October 27th, 1891, upon call of the Secretary of the Institute, and after organizing, appointed additional members and a sub-committee, so that it now stands as follows:

T. Commerford Martin, Chairman,
150 Broadway, New York City.

Ralph W. Pope, Secretary,
12 West 31st St., New York City.

Prof. W. A. Anthony,
Prof. Alex. Graham Bell,
Prof. Francis B. Crocker,
Prof. Charles R. Cross,
Dr. William E. Geyer,
Mr. Ludwig Gutmann,
Mr. George A. Hamilton,
Col. Chas. H. Haskins,
Mr. Carl Hering,
Prof. Edwin J. Houston,
Mr. Thomas D. Lockwood,
Mr. C. O. Mailloux,
Prof. Henry Morton,
Dr. Edward L. Nichols,
Mr. George M. Phelps,
Mr. Franklin L. Pope,
Mr. Nikola Tesla,
Prof. Elihu Thomson,
Mr. Edward Weston,
Dr. Schuyler S. Wheeler,
Mr. A. E. Kennelly.

Sub-Committee on Provisional Programme,

Mr. Carl Hering, Prof. W. A. Anthony,
Mr. A. E. Kennelly.

In addition to the legislative work as outlined, a paper was read before the Institute at its meeting, December 16, 1890, upon "Inductance and Its Proposed Unit the Henry," by Mr A. E. Kennelly, which was discussed at the following meeting, January 20, 1891, together with the report of the Committee on the Valuation of the Henry, all of which appear in the numbers of the Transactions for January and February, 1891.

Since the above preparations for an International Electrical Congress were undertaken by the Institute, the organization of the World's Electrical Congress in connection with the World's Columbian Exposition has been placed in the hands of the Electrical Congress Committee of the World's Congress Auxiliary, of which Dr. Elisha Gray is Chairman, and the authorities of the Institute are working in harmony with it, as is shown in the following resolution, passed by the Institute's Congress Committee December 16th, 1891, and approved at a special meeting of Council held December 23rd, 1891.

Resolved, That the American Institute of Electrical Engineers, having already taken action during the past three years, by correspondence and otherwise, towards the holding of an International Electrical Congress in connection with the Columbian World's Fair, hereby expresses its desire and intention to co-operate, by all means in its power, with the World's Congress Auxiliary of the World's Columbian Exposition, through its Electrical Congress Committee, in furthering the gathering of such a Congress at Chicago in 1893, and in making it a successful and worthy representation of the best electrical science and practice in all parts of the world.

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Terms expire 1893.

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Transactions of the Institute Already Published.

[Complete sets of the first four volumes are out of print.]

Vol. V, 1887-8.

ON ELECTRIC STREET CARS, WITH SPECIAL REFERENCE TO METHODS OF GEARING. Anthony Reckenzaun, of London. No. 1, October, 1887.—A COULOMB METER, OR INSTRUMENT FOR MEASURING THE CONSUMPTION OF ELECTRICITY. (Illustrated.) Prof. George Forbes, F.R.S., of London. No. 2, November, 1887.—RECENT IMPROVEMENTS IN APPARATUS FOR OCEAN CABLING. (Illustrated.) Charles Cuttriss. Supplementary Note on the Siphon Recorder, and Ocean Telephony, by Thos. D. Lockwood. No 3, December, 1887.—PHENOMENA OF RETARDATION IN THE INDUCTION COIL. (Illustrated.) William Stanley, Jr. No. 4, January, 1888.—REVISION OF THE PATENT LAW. Arthur Steuart, Esq. No. 5, February, 1888.—ELECTRIC ENERGY FROM CARBON WITHOUT HEAT. Willard E. Case, Auburn, N. Y. No. 6, March, 1888.—ALTERNATING CURRENT ELECTRIC MOTORS. Dr. Louis Duncan, Baltimore, Md. No. 7, April, 1888.—MAXIMUM EFFICIENCY OF INCANDESCENT LAMPS. (Illustrated.) John W. Howell. No. 8, May, 1888.—PROTECTION OF THE HUMAN BODY FROM DANGEROUS CURRENTS. Patrick B. Delany.—THE POSSIBILITIES AND LIMITATIONS OF CHEMICAL GENERATORS OF ELECTRICITY. Francis B. Crocker. No. 9, June, 1888—ON COMPENSATED RESISTANCE STANDARDS. (Illustrated.) Edward L. Nichols. A NEW SYSTEM OF ALTERNATE CURRENT MOTORS AND TRANSFORMERS. (Illustrated.) Nikola Tesla. UNDERGROUND ELECTRICAL CONDUCTORS IN EUROPE AND AMERICA. Prof. G. W. Plympton. THE PATENT COURT AND UNIFORMITY IN PATENT OFFICE PRACTICE. George H. Stockbridge. A SWINGING ARM GALVANOMETER. (Illustrated.) George S. Meier. No. 10, July, 1888. THE SOLUTION OF THE MUNICIPAL RAPID TRANSIT PROBLEM. (Illustrated.) Frank J. Sprague. No. 11, August, 1888. SOME OBJECTIONS TO THE OVERHEAD CONDUCTOR FOR ELECTRIC RAILWAYS, M. B. Leonard. NOTE ON GEARING FOR ELECTRIC RAILWAY MOTORS, Almon Robinson. No. 12, September, 1888.

Vol. VI, 1889.

[Including October, November and December, 1888.]

THE GEYER-BRISTOL METER FOR DIRECT AND ALTERNATING CURRENTS. [Illustrated.] Prof. William E. Geyer. THE ABDANK MAGNETIC CALL AND THE ABDANK INTEGRAPH. [Illustrated.] E. Abdank-Abakanowicz. No. 1, January, 1889. SIX YEARS PRACTICAL EXPERIENCE WITH THE EDISON CHEMICAL METER. (Illustrated.) W. J. Jenks. No. 2, February, 1889. LIGHTNING ARRESTERS AND THE PHOTOGRAPHIC STUDY OF SELF-INDUCTION. (Illustrated.) E. G. Acheson. No. 3, March, 1889. A NEW SYSTEM OF MULTIPLEX TELEGRAPHY. (Illustrated.) Lieut. F. Jarvis Patten. LIGHTNING ARRESTERS AND THE PHOTOGRAPHIC STUDY OF SELF INDUCTION. Notes by Jo. Stanford Brown and Chas. T. Child. REPLY TO THE NOTES OF MESSRS. BROWN AND CHILD by E. G. Acheson. No. 4, April, 1889. THE EFFICIENCY OF METHODS OF ARTIFICIAL ILLUMINATION. Illustrated. Edward L. Nichols. No. 5, May, 1889. SOME RESULTS WITH SECONDARY BATTERIES IN TRAIN LIGHTING. (Illustrated.) Alexander S. Brown. THE INHERENT DEFECTS OF LEAD STORAGE BATTERIES. (Illustrated.) Dr. Louis Duncan. ELECTRIC MOTOR REGULATION. (Illustrated.) Francis B. Crocker. Nos. 6 and 7, June and July 1889. (Double Number). MAGNETISM IN ITS RELATION TO INDUCED ELECTROMOTIVE FORCE AND CURRENT. (Illustrated.) Prof. Elihu Thomson of Lynn, Mass. ON THE RELATION BETWEEN THE INITIAL AND THE AVERAGE EFFICIENCY OF INCANDESCENT LAMPS. (Illustrated.) W. H. Peirce of New York. THE EFFICIENCY OF THE ARC LAMP. (Illustrated.) H. Nakano, of Japan, with an introductory note by Prof. E. L. Nichols. THE SPIRAL COIL VOLTAMETER. (Illustrated.) Harris J. Ryan, of Ithaca, N. Y. THE PERSONAL ERROR IN PHOTOMETRY. (Illustrated). Prof. Edward L. Nichols, of Ithaca, N. Y. ON MODERN VIEWS WITH RESPECT TO ELECTRIC CURRENTS. (Illustrated.) Prof. Henry A. Rowland, of Baltimore, Md. CLASSIFIED LIST OF MEMBERS. Nos. 8 and 9, August and September, 1889, (Double Number.) No. 10, October, 1889. SOME RECENT ELECTRICAL WORK ON THE ELEVATED RAILROADS. (Illustrated.) Leo Daft, of Plainfield, N. J. ALTERNATING CURRENT MOTORS: THE EVOLUTION OF A NEW TYPE. (Illustrated.) Lieut. F. Jarvis Patten, of New York. No. 11, November, 1889. ELECTRICAL NOTES OF A TRANS-ATLANTIC TRIP. Thomas D. Lockwood, of Boston, Mass. SOME METHODS OF REGULATING ACCUMULATORS IN ELECTRIC LIGHTING. (Illustrated.) George B. Prescott, Jr., of New York. No. 12, December, 1889. FORM AND EFFICIENCY OF INCANDESCENT FILAMENTS. Charles J. Reed of New York. TELEGRAPH LINE ADJUSTMENT:—NOTE ON A NEW GRAVITY CELL. P. B. Delany of New York.

Vol. VII. 1890.

Transformers. (Illustrated.) Harris J. Ryan. No. 1, January, 1890. A Review of the Modern Theories of Electricity. (Illustrated.) Prof. W. A. Anthony. No. 2, February, 1890. The Practical Working of the Electrical Subways of New York City. (Illustrated.) William Maver, Jr. No. 3, March, 1890. Some Tests on the Efficiency of Alternating Current Apparatus. (Illustrated.) Dr. Louis Duncan and W. F. C. Hasson. No. 4, April, 1890. Phenomena of Alternating Current Induction. (Illustrated.) Prof. Elihu Thomson. Electricity in the Navy. Gilbert Wilkes, No. 5, May, 1890. Electric Lighting in the Tropics. Wilfrid H. Fleming. Life and Efficiency of Arc Light Carbons. (Illustrated.) Louis B. Marks. Practical Aspects of the Alternating Current Theory. M. I. Pupin. Magnetic Data of the Sprague Street Car Motor. (Illustrated.) H. F. Parshall. The Industrial Utilization of the Counter Electromotive Force of Self-Induction. Thomas D. Lockwood. Nos. 6 and 7, June and July. (Double Number.) Life and Efficiency of Arc Light Carbons Discussion. (Illustrated.) Practical Aspects of the Alternating Current Theory. Discussion. Note on a New Photometer. (Illustrated.) Dr. Edward L. Nichols of Ithaca, N. Y. The Limitations of Steam and Electric Transportation. (Illustrated.) Oscar T. Crosby, now of New Orleans. Automatic Electric Welding Machines. Hermann Lemp, Jr., of Lynn, Mass. Nos. 8 and 9, August and September, (Double Number.) Efficiency of Transformers. (Illustrated.) Calvin Humphreys and W. H. Powell. Notes upon some Experiments with Alternating Current Apparatus. (Illustrated.,' Prof. Harris J. Ryan. Catalogue of Membership. Revised to November 1st. 1890. No. 10 October. Preliminary Report of the Standard Wiring Table Committee. Resolutions on Adoption of American Names for Electrical Units. Investigation of the Stanley Alternate Current Arc Dynamo. W. B. Tobey and G. H. Walbridge. A New Method of Analyzing Armature Reactions, Applied to the Stanley Arc Light Alternating Current Machine. Thorburn Reid. No. 11 November. Revised Report of the Standard Wiring Table Committee. The Theory of Compound Winding for Constant Potential. (Illustrated.) Dr. Louis Bell, of New York. A New Method of Analyzing Armature Reactions of Alternators. Charles Steinmetz, of Yonkers, N. Y. List of New Associate Members. Elected Sept. 16th, Oct. 21st, Nov. 18 and Dec. 16th. No. 12 Decembei.

Vol. VIII. 1891.

Inductance, and its Proposed Unit, the "Henry." (Illustrated.) By A. E. Kennelly. The Improved Gramophone. (Illustrated.) By Emile Berliner. No. 1, January, 1891. Inductance, and its Proposed Unit, the "Henry." Report of Committee on Valuation of the Henry. Joint Discussion. No. 2, February, 1891. Report of High Speed Electric Railway Work. (Illustrated.) By O. T. Crosby. The Inventions of Thomas Davenport. (Illustrated.) By Franklin L. Pope. No. 3, March, 1891. Inductive Disturbances in Telephone Circuits. (Illustrated.) By J. J. Carty. No. 4, April, 1891. Electricity in the Production of Aluminium. (Illustrated.) By Alexander S. Brown. Some Possible Modifications in the Methods of Protecting Buildings from Lightning. By N. D. C. Hodges. No. 5, May 1891. Reports of Council and Treasurer. Officers Elected. The Perfection of Stationary Electric Motors. (Illustrated.) By Francis B. Crocker. A Photographic Study of the Electric Arc. (Illustrated.) By Edward L. Nichols. A New Graphical Method of Calculating Leads for Wiring. (Illustrated.) By Carl Hering. A Thermo-Electric Method of Studying Steam Cylinder Condensation in Steam Engines. (Illustrated.) By Edwin H. Hall. The Practical Aspects of Electric Welding. By Frederic A. C. Perrine. Experiments with Alternate Currents of Very High Frequency. (Illustrated.) By Nikola Tesla. Nos. 6 and 7, June and July, 1891. An Alternate Current Potentiometer. (Illustrated.) By Geo. S. Moler. Considerations Which Should Govern the Selection of a Rapid Transit System. By F. J. Sprague. Electric Meters. By Geo. W. Walker. A Study of an Open Coil Arc Dynamo. (Illustrated.) By Milton E. Thompson. The Future of the Aluminium Problem from the Chemical Standpoint. By Wm. H. Wahl. Small "Aluminum" be "Alium." By Oberlin Smith. Notes on Electricity in Mining Work. (Illustrated.) By Sydney F. Walker. Nos. 8 and 9 August and September, On the Relation of the Air Gap and the Shape of the Poles to the Performance of Dynamo Electric Machinery. (Illustrated.) By Harris. J. Ryan. No 10, October, 1891. Magnetic Reluctance. (Illustrated.) By A. E. Kennelly. Report of Committee on Units and Standards. Report of Delegation to Frankfort International Electrical Congress. No. 11. November, 1891. Notes on the Frankfort Electrical Exhibition. By Carl Hering. On Polyphasal Generators. (Illustrated.) By M. I. Pupin. Catalogue of Members and Publications, December, 1891.

Vol. IX. 1892.

On the Law of Hysteresis. (Illustrated.) By Charles P. Steinmetz. No. 1, January, 1892. A Proposed System of Alternating-Direct Current Transformation. (Illustrated.) By Lieut. F. Jarvis Patten. Note on the Molecular Movement in a Conductor. (Illustrated.) By A. E. Dolbear. No. 2, February, 1892. Lightning Arresters and the Discovery of Non-Arcing Metals. (Illustrated.) By Alexander J. Wurts. No. 3, March, 1892. Methods of Electrically Controlling Street Car Motors. (Illustrated.) By H. F. Parshall. No. 4, April, 1892.

American Institute of Electrical Engineers.

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Field, Cyrus W.	21 Gramercy Park, New York City.	H. M. May 17, '92
Green, Dr. Norvin	(*Past President*) Pres't Western Union Telegraph Co. P. O. Box 3393, 195 Broadway, New York.	A April 15, 1884 M Oct 21, 1884 H.M. Dec. 3, 1889
Kelvin, *Lord*	LL. D., F. R. S. S. L. and E. The University, Glasgow, Scotland.	H. M. May 17, '92
Preece, Wm. H. *F. R. S.*	Electrician, General Post Office, London, Eng. Residence, Gothic Lodge, Wimbledon.	H.M. Oct. 21, 1884
Siemens, Dr., Werner von,	Berlinerstrasse 36, Charlottenburg, Germany.	H. M. May 17, '92

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Acheson, Edw. G	President, The Monongahela Electric Light Co., Monongahela City, Pa.	A Jan 3, 1888 M May 1, 1888
Ahearn, T.	Ahearn & Soper, Electrical Supplies, Ottawa, Ont.	A July 12, 1887 M Sept. 6, 1887
Anthony, Prof. W. A.	(*Past President.*) Consult'g Electrician. The Mather Electric Co., Manchester, Conn.	A Dec. 9, 1884 M Jan. 6, 1885
Ayer, James I	General Manager, Municipal Electric L. & P. Co., 322 Pine St., St. Louis, Mo.	A May 19, 1891 M April 19, 1892
Ayres, Brown	Professor of Physics and Electrical Engineering, Tulane University, New Orleans, La.	A Dec 16, 1891 M Mar. 15. 1892
Batchelor, Chas.	Electrical Engineer, 33 West Twenty-fifth St., New York.	A June 8, 1887 M July 12, 1887
Bates, J. H.	Moore Electrical Manufacturing Co., 652 Hudson St., New York City.	A Sept. 6, 1887 M Oct. 1, 1889
Bates, Maurice E.	Manager, Western Electric Construction Co., 125 West 6th St., Kansas City, Mo.	A Aug. 6, 1889 M Oct. 1, 1889
Bauer, A. H.	Electrical Engineer, Pullman Palace Car Co., Room 307. Pullman Building, Chicago, Ill.	A Feb. 7. 1890 M Apr. 21, 1891
Bayles, Robert N.	Electrician, The "C & C" Electric Motor Co., 404 Greenwich St., New York.	A Oct. 1, 1889 M May 17, 1892
Bayly, B.	Surveyor and District Engineer, Western District Colonial Gov't. Cape Town, Cape of Good Hope, Africa.	A Oct. 4, 1887 M Dec. 6. 1887
Bell, Prof. A. Graham	(*Past-President.*) 1336 Nineteenth St., Washington, D. C.	A April 15, 1884 M Oct. 21, 1884

Name	Address.	Date of Membership.
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BENJAMIN, PARK	Electrical Expert and Engineer. 32 Park Place, N. Y. City.	A Dec. 16, 1891 M Feb. 16, 1892
BERNARD, EDGAR G.	Electrical Engineer. E. G. Bernard & Co., Hall Building, Troy, N. Y.	A Jan. 5, 1886 M July 12, 1887
BINNEY, HAROLD	Assistant in the Practice of Patent Law, with Gilbert M. Plympton, 245 Broadway, New York City.	A Sept. 16, 1890 M Dec. 16, 1890
BIRDSALL, E. T. *M. E.*	Electrical Engineer, 18 Broadway, New York.	A June 8, 1887 M Nov. 1, 1887
BLAKE, EDWARD	361 Temple Street, New Haven, Conn	A May 24, 1887 M Sept. 3, 1889
BLAKE, FRANCIS	Auburndale, Mass.	A Sept. 3, 1889 M Oct. 1, 1889
BLODGETT, GEO. W.	Electrical Engineer B. & A. R. R. and Consulting Electrician, Boston, Mass.	A July 12, 1887 M Sept. 6, 1887
BOSCH, ADAM	Sup't, Fire Alarm Telegraph, Newark, N. J.	A April 15, 1884 M Jan. 6, 1885
BOYNTON, EDWARD C. JR.	Thomson-Houston Electric Co., Residence, 24 Chase St., Lynn, Mass.	A Aug. 6, 1889 M Nov. 24, 1891
BRADLEY, CHAS. S.	Electrical Engineer, Wayne Hotel, Fort Wayne, Ind.	A May 24, 1887 M Dec. 6, 1887
BROOKS, MORGAN	Secretary and Treasurer, The Electrical Engineering & Supply Co., 413 Jackson St., and 529 Holly Ave., St. Paul, Minn.	A May 20, 1890 M June 17, 1890
BROWN, J. STANFORD	Consulting Electrical Engineer, 126 Liberty St., New York City, and 438 8th Ave., Brooklyn, N. Y.	A Sept. 6, 1887 M Nov. 1, 1887
BRUSH, CHAS. F.	Electrical Engineer, 956 Euclid Ave, Cleveland, O.	A April 15, 1884 M Oct. 21, 1884
BURLEIGH, CHAS. B.	Sup't. Isolated Dep't. Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	A April 21, 1891 M Feb. 16, 1892
BYLLESBY, HENRY M.	Northwest Thomson-Houston Electric Co., 403 Sibley St., St. Paul, Minn.	A Sept. 7, 1888 M Oct. 2, 1888
CAHOON, JAS. B.	Electrical Engineer, Thomson-Houston Electric Co., 68 Baker St., Lynn, Mass.	A June 17, 1890 M May 19, 1891
CARROLL, LEIGH	President and General Manager, The Edison Electric Illuminating Co., Birmingham, Ala.	A Oct 1, 1889 M Nov. 12, 1889
CHAMBERLAIN, J. C.	(*Manager.*) Electrical Engineer, 136 Liberty St., and 135 East 18th St., New York.	A Dec. 6, 1887 M Jan. 3, 1888
CHEEVER, CHAS. A.	13 Park Row, New York.	A April 15, 1884 M Oct. 21, 1884
CLARK, ERNEST P.	Electrical Engineer, Clark Electric Co., 192 Broadway, New York	A Jan. 8, 1887 M Nov. 1, 1887
CLARKE, CHAS. L.	Mechanical and Electrical Engineer, 55 Liberty St., New York.	A April 15, 1884 M Jan. 6, 1885

Name.	Address.	Date of Membership.
COLBY, EDWARD A.	Lock Box 313. Newark, N. J.	A April 2, 1889 M May 7, 1889
CONDICT, G. HERBERT	General Manager, The Electric Car Co. of America, 4720 Green St., Germantown, Pa.	A July 12, 1887 M Sept. 6, 1887
COTHREN, WM. H.	Edison General Electric Co., Rialto Building, Chicago, Ill.	A Aug. 6, 1889 M Oct. 1, 1889
COWLES, ALFRED H.	Technical Adviser to the Cowles Smelting and Aluminum Co., 656 Prospect St., Cleveland, O.	A Mar. 5, 1889 M May 7, 1889
CROCKER, FRANCIS B. [Life Member.]	Instructor in Electrical Engineering, School of Mines, Columbia College, and 54 W. 21st Street, New York.	A May 24, 1887 M April 2, 1889
CROSS, PROF. CHAS. R.	Thayer Professor of Physics, and Director of the Rogers Laboratory, Mass. Institute of Technology, Boston, Mass.	A April 15, 1884 M Oct. 21, 1884
CURTISS, GEORGE F.	Electrician, Thomson-Houston Electric Co., Lynn, Mass.	A April 2, 1889 M Nov. 24, 1891
CUTTER, GEORGE	Dealer in Electrical Supplies, 315 South Canal St., Chicago, Ills.	A June 17, 1890 M May 19, 1891
CUTTRISS, CHAS.	Electrician, The Commercial Cable Co., 1 Broad St., New York.	A Nov. 1, 1887 M Dec. 6, 1887
DAFT, LEO	Consulting Electrical Engineer and Contractor, Burke Building, Seattle, Wash.	A Dec. 9, 1884 M Jan. 6, 1885
DANVERS, ALAN	Managing Director and Chief Electrician, The Anglo-Portugese Telephone Co., L'td. 60 Travessa Santa Justa, Lisbon, Port'l	A Nov. 1, 1887 M Sept. 3, 1889
DANVERS, ERNESTO	Electrical Engineer, Casilla 74, Rosario, Argentine Republic.	A Jan. 3, 1888 M May 1, 1888
DAVIES, JOHN E	Professor of Physics, University of Wisconsin, 523 Carroll St. Madison, Wis	A Jan. 7, 1890 M Mar. 18, 1890
DAVIS, CHARLES H.	Consulting Electrical Engineer, 120 Broadway, New York.	A Mar. 18, 1890 M June 17, 1890
DELAFIELD, A. FLOYD, *Ph.D.*	Electrical Engineer, Noroton, Conn.	A May 7, 1889 M Oct. 1, 1889
DELANY, PATRICK BERNARD, (*Manager*).	Inventor, South Orange, N. J.	A April 15, 1884 M Nov. 24, 1891
DICKENSON, SAMUEL S.	Sup't, Commercial Cable Co., Hazel-Hill, Guysborough Co., N.S.	A Mar. 6, 1888 M Oct. 1, 1889
DIEHL, PHILIP	Inventor, Singer Sewing Machine Co., 508 Morris Ave., Elizabeth, N. J.	A April 15, 1884 M Dec. 9, 1884
D'INFREVILLE, GEORGES	Electrical Engineer and Expert 434 Canal St., New York.	A Nov. 1, 1887 M Dec. 6, 1887
DOIJER, H.	Consulting Electrical Engineer, Care of J. G. F. Rooker, Oostsingel, Delft, Holland.	A Jan. 7, 1890 M Mar. 18, 1890
DONNER, WILLIAM H.	Sterns Mfg. Co., Erie, Pa.	A Nov. 18, 1890 M Dec. 16, 1890
DUDLEY, CHARLES B.	Chemist and Scientific Expert, Penn. R. R. Co., 1219 Twelfth Ave., Altoona. Pa.	A Oct. 1, 1889 M Nov. 12, 1889

Name.	Address.	Date of Membership.
DUNCAN, DR. LOUIS	(*Vice-President*). Johns Hopkins University, Baltimore, Md., Firm of Sprague, Duncan & Hutchinson, 15 Wall St., New York City.	A July 12, 1887 M Sept. 6, 1887
DUNSTON, ROBERT EDWARD,	Room 86, Foster Block, Hartford, Conn.	A Oct. 27, 1891 M Feb. 16, 1892
DYER, R. N.	Patent Attorney, 36 Wall St., New York.	A July 12, 1887 M Sept. 6, 1887
EDISON, THOMAS A.	Mechanician and Inventor, Orange, N. J.	A April 15, 1884 M Oct. 21, 1884
EMERY, CHARLES EDWARD	Consulting Engineer, Bennett Building, cor. Fulton and Nassau Sts., New York.	A June 26, 1891 M April 19, 1892
EUSTIS, HERBERT H.	President and Electrician, Eastern Electric Cable Co., 61 Hampshire St., Boston, Mass.	A April 15, 1890 M Nov. 24, 1891
FARNHAM, ISAIAH H.	Electrician for the N. E. Telephone & Telegraph Co., 50 Pearl St., Boston, Mass.	A June 8, 1887 M July 12, 1887
FESSENDEN, REGINALD A.	Assistant Electrician, U. S. Electric Light Co., Newark, N. J.	A Oct. 21, 1890 M Dec. 16, 1890
FIELD, C. J.	President and General Manager Field Engineering Co., 143 Liberty St., New York.	A June 8, 1887 M Nov. 1, 1887
FIELD, STEPHEN D.	Electrician and Inventor, Yonkers, N. Y.	A April 15, 1884 M Oct. 21, 1884
FLEMING, WILFRID H.	Trask Avenue, Bayonne City, N. J.	A Dec. 6, 1887 M Jan. 3, 1888
FOSTER, HORATIO A.	(*Manager.*) Electrical Engineer, 548 E. 164th St., New York.	A June 8, 1887 M Sept. 6, 1887
FREEMAN, DR. FRANK L.	Attorney-at-Law, Solicitor of Patents, Electrical Expert, 931 F St., Washington, D. C.	A May 7, 1889 M Sept. 3, 1889
GARRATT, ALLAN V.	President, Spokane and University Heights Street Railway Co., Spokane Falls, Wash.	A April 2, 1889 M May 7, 1889
GARVER, M. M.	(Present address unknown.)	A July 10, 1888 M Sept. 3, 1889
GEYER, DR. WM. E.	Stevens Institute of Technology, Hoboken, N. J.	A June 5, 1888 M Sept. 7, 1888
GRAY, ELISHA	Highland Park, Ill.	A Feb. 16, 1892 M May 17, 1892
GRISCOM, WM. W.	Haverford College P. O., Montgomery Co., Pa President, The Electro Dynamic Co., 224 Carter St., Philadelphia.	A June 5, 1888 M Mar. 18, 1890
HALL, CLAYTON C.	Civil Engineer. 810 Park Ave., Baltimore, Md.	A April 15, 1884 M Oct. 21, 1884
HAMBLET, JAMES	(*Manager*) Manager Time Service, W. U. Tel. Co., 195 Broadway, P. O. Box 3393, New York.	A Nov. 1, 1887 M Dec. 6, 1887
HAMILTON, GEO. A.	Electrician, Western Electric Co., 22 Thames cor. Greenwich St., New York, and 532 Morris Ave., Elizabeth, N. J.	A April 15, 1884 M Oct. 21, 1884

Name.	Address.	Date of Membership.
HAMMER, W. J.	(*Vice-President.*) Consulting and Supervising Electrical Engineer, 533 Temple Court, N. Y., and 23 Rowland St., Newark, N. J.	A June 8, 1887 M July 12, 1887
HASKINS, CHARLES H.	Electrician, 80 Broadway, New York.	A April 15, 1884 M Oct, 21, 1884
HAYES, HAMMOND V.	Electrician, American Bell Telephone Co., 127 Purchase St., Boston, Mass.	A Nov. 12, 1889 M Mar. 18, 1890
HAYNES, F. T. J.	Divisional Telegraph Engineer, Great Western Railway, Taunton, Eng.	A Dec. 6, 1886 M Jan. 3, 1887
HAZARD, COL. ROWLAND R.	N. Y. District Railway Co., 120 Broadway, New York.	A April 15, 1884 M Oct. 21, 1884
HERING, CARL	(*Vice-President.*) Editor *Electrical World*, and Consulting Electrical Engineer, 3816 Spring Garden St., Philadelphia, Pa	A Jan. 3, 1888 M June 5, 1888
HERZOG, DR. F. BENEDICT	President Herzog Teleseme Co., 30 Broad St., New York.	A May 24, 1887 M July 12, 1887
HEWITT, CHARLES	The Edison General Electric Co., Edison Building, Broad St., Box 3067, New York City.	A Sept. 16. 1890 M May 17, 1892
HIBBARD, ANGUS S.	(*Manager*). General Superintendent, American Telephone and Telegraph Co, 18 Cortlandt St., N. Y. City.	A Nov. 24, 1891 M Feb. 16, 1892
HIGGINS, EDWARD E.	Electrical Engineer, General Manager, The Short Electric Railway Co., Cleveland, O.	A June 8, 1887 M July 12, 1887
HOUSTON, PROF. EDWIN J.	Prof. of Physics, Franklin Inst., Prof. of Physics and Physical Geography, Central High School, 1809 Spring Garden St., Philadelphia, Pa.	A April 15, 1884 M Oct. 21, 1884
HOWELL, JOHN W.	Electrician, Edison Lamp Works, Harrison N. J.	A July 12, 1887 M June 5, 1888
HOWELL, WILSON S.	Electrical Expert, Edison Lamp Works, Harrison, N. J.	A Sept. 3, 1889 M Mar. 18, 1890
HUNTER, RUDOLPH M.	Mechanical and Elect'al Engineer, 926 Walnut St., Philadelphia, Pa	A July 13, 1886 M May 17, 1887
HUTCHINSON, DR. CARY T.	Electrical Engineer, 56 West 25th St., Firm of Sprague, Duncan & Hutchinson, 15 Wall St., New York City.	A Feb. 7, 1890 M Dec. 16, 1890
HYDE, JEROME W.	Springfield, Mass.	A June 8, 1887 M Nov. 1, 1887
INRIG, ALEC GAVAN	Rue St. Gommaire, 23, Antwerp, Belgium.	A Jan. 19, 1892 M May 17, 1892
JACKSON, DUGALD C.	Professor of Electrical Engineering University of Wisconsin, Madison, Wis.	A May 3, 1887 M June 17, 1890
JACKSON, FRANCIS E.	With Edison Lamp Works, Harrison N. J.	A Jan. 3, 1888 M June 17, 1890
JANNUS, FRANKLAND	Solicitor of Patents, 928-30 F. St Washington, D. C.	A Nov. 12, 1889 M Mar. 18, 1890
JENKS, W. J.	Technical Department, Edison, General Electric Co., 44 Broad Street, Box 3067, New York.	A June 8, 1887 M Nov. 1, 1887

Name.	Address.	Date of Membership.
JONES, FRANCIS W. [Life Member.]	Assistant Gen'l-Manager and Electrician, Postal-Telegraph Cable Co., 5 Dey St., New York.	A April 15, 1884 M Oct. 21, 1884
KNOWLES, E. R.	Chief Electrician, The Schuyler Electric Company, Middletown, Conn.	A June 8, 1887 M July 12, 1887
KNUDSON, A. A.	Manager, Eastern Electric Co., St. John. N. B. Room 37, Drexel Bldg., New York City.	A Dec. 6, 1887 M Jan. 3, 1888
LANGE, PHILIP A.	Superintendent of Detail Department, Westinghouse Electric Co., Pittsburgh, Pa.	A Mar. 6, 1888 M June 5, 1888
LANGTON, JOHN	General Manager, Canadian Edison M'f'g Co., Peterboro. Ont.	A Mar. 6, 1888 M June 5, 1888
LATTIG, J. W.	Gen. Sup't., Electric Secret Service Co., 45 Broadway, New York City, and 1029 Arlington Terrace, Easton, Pa	A June 8, 1887 M July 12, 1887
LAWSON A. J.	Electrical Engineer and Contractor, Grantown, Scotland.	A Mar. 18, 1890 M June 17, 1890
LEONARD, H. WARD	(*Manager*). General Manager, The H. Ward Leonard Co., 136 Liberty St., New York.	A July 12, 1887 M Sept. 6, 1887
LEONARD. M. B.	Electrical Engineer, and Supt. of Telegraph, Chesapeake & Ohio R'y. Co., Richmond, Va.	A Nov. 6, 1886 M May 1, 1888
LIEB, JOHN W., JR.	Chief Engineer, Società Generale Italiana di Elettricita (Sistema Edison). Via S. Radigonda N. 4, Milan, Italy.	A Sept. 6, 1887 M Nov. 1, 1887
LOCKWOOD, THOMAS D. [Life Member.]	(*Vice-President.*) Electrical Engineer, and Advisory Electrician, P. O. Drawer 2, Boston, Mass.	A April 15, 1884 M Oct. 21, 1884
LYNE, LEWIS F.	Mechanical and Elect'al Engineer, 307 Grove St., Jersey City, N. J.	A Jan. 3, 1888 M June 5, 1888
MACFARLANE, ALEXANDER	Professor of Physics, University of Texas. Austin, Texas	A Jan. 19, 1892 M May 17, 1892
MAILLOUX, C. O.	Consulting Electrical Engineer, 45 William St., New York.	A April 15, 1884 M Oct. 21, 1884
MARKS, WILLIAM DENNIS,	*Ph. B., C. E.* Edison Electric Light Co., Philadelphia, Pa.	A Feb. 7, 1888 M May 1, 1888
MARSHALL, J. T.	Inspector of Lamp Manufacture, Edison Lamp Works, Harrison, N. J.	A Oct. 1, 1889 M Nov. 12, 1889
MAVER, WILLIAM, JR.	Electrical Expert, 31 Nassau St., New York.	A July 12, 1887 M Apr. 21, 1891
MAYNARD, GEO. C.	Electrical Engineer, 1409 New York Ave., Washington, D. C.	A April 15, 1884 M Dec. 9. 1888
MCCAY, H. K.	Electrician, 4426 Sansom St., N. Philadelphia, Pa.	A Sept. 16, 1890 M May 19, 1891
MILLIS, JOHN	Lieutenant of Engineers, U. S. Army. P.O. Drawer 432. New Orleans, La.	A July 7, 1884 M Mar. 3, 1885
MILLS, FRANK P.	Superintendent Cleveland Iron Mining Co., Ishpeming, Mich.	A Jan. 6, 1885 M Mar. 3, 1885
NICHOLS, DR. EDWARD L.	Professor of Physics, at Cornell University, Ithaca, N. Y.	A Oct. 4, 1887 M Dec. 6, 1887

Name.	Address.	Date of Membership.
PAINE, SIDNEY B.	Electrical Constructor, member of firm "Paine & Francis," 25 Otis St., Boston, Mass.	A June 8, 1887 M Nov. 1, 1887
PAINE, F. B. H.	Edison General Electric Co., Fleischner Building, Portland, Oregon.	A Dec. 16, 1890 M Nov. 25, 1891
PARKS, C. WELLMAN	Electrician, 1825 Fifth Ave., Troy, N. Y	A July 12, 1887 M May 1, 1888
PARSHALL, H. F.	Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	A Sept. 7, 1888 M Mar. 18, 1890
PATTEN, F. JARVIS,	Electrical Engineer, 45 Broadway, New York.	A Sept. 6, 1887 M Nov. 1, 1888
PATTISON, FRANK A.	Firm of Pattison Bros., Consulting and Constructing Electrical Engineers, 135 Broadway, New York City.	A Sept. 22, 1891 M Dec. 16, 1891
PERRINE, FREDERIC A. C.	Care Germania Electric Co., 620 Atlantic Ave., Boston, Mass.	A Sept. 16, 1890 M Dec. 16, 1890
PFANNKUCHE, GUSTAV	Engineer and Inventor, 655 Wilson Ave., Cleveland, O.	A Feb. 7, 1888 M May 1, 1888
PHELPS, GEO. M.	(*Treasurer*). President, *Electrical Engineer*, 203 Broadway, New York.	A April 15, 1884 M Oct. 21, 1884
PICKERNELL, F. A.	Sup't. of Equipment, Amer. Tel. & Tel. Co., 18 Cortlandt St. N. Y.	A Feb. 7, 1890 M Mar. 18, 1890
POPE, FRANKLIN L.	(*Past President*). Consulting Electrical Engineer and Expert, 15 Wall St., N. Y. Residence, Elizabeth, N. J.	A April 15, 1884 M Oct. 21, 1884
PORTER, J. F.	29 Broadway, New York City.	A Sept. 6, 1887 M Nov. 1, 1887
PRATT, ROBERT J.	Electrician. Treas. and Mgr. Electric Mfg. Co. and Gas Engine Co., Greenbush, N. Y.	A July 12, 1887 M Sept. 6, 1887
PRESCOTT, GEO. B., JR.	Electrical Engineer. 24 South St., Pittsfield, Mass.	A July 12, 1887 M Nov. 1, 1887
RAYMOND, CHAS. W.	Civil and Electrical Engineer, Merrimac Consolidated Mining Co., Platoro, Conejos Co., Col.	A June 8, 1887 M May 17, 1887
RECKENZAUN, ANTHONY	Electrical Engineer, 7 Albert Terrace, Hemberton Road, Stockwell, London, S. W. England.	A Nov. 1, 1887 M Dec. 6, 1887
RECKENZAUN, FREDERICK,	Electrician, Box 225, West Hoboken, N. J.	A Mar. 6, 1888 M June 5, 1888
RICE, E. WILBUR, JR.	General Superintendent and Consulting Electrician, Thomson-Houston Elec. Co., Lynn, Mass.	A Dec. 6, 1887 M Jan. 3, 1888
RIES, ELIAS E.	Electrician and Electrical Engineer, 430 South Broadway, Baltimore, Md.	A July 12, 1887 M Sept. 6, 1887
ROBB, WM. LISPENARD	Professor of Physics, Trinity College, Hartford, Conn.	A Dec. 16, 1891 M Mar. 15, 1892
ROBERTS, E. P.	Electrician and Sup't, Swan Lamp Co., Belden St., Cleveland, O.	A Jan. 6, 1885 M Feb. 3, 1885
ROHRER, ALBERT L.	Electrical Engineer, with Thomson-Houston Electric Co., Lynn, Mass.	A Nov. 1, 1887 M May 1, 1888

Name.	Address.	Date of Election.
SALOMONS, *Sir* DAVID LIONEL, *Bart. M. A.*, [Life Member]	Engineer and Barrister, Broomhill, Tunbridge Wells, Kent. and 49 Grosvenor St., London, W., England.	A Feb. 7, 1888 M May 1, 1888
SCHULZE-BERGE, FRANZ	44 Monroe Place, Brooklyn, N. Y.	A Nov. 12, 1889 M Mar. 18, 1890
SHALLENBERGER, O. B.	Electrician, Westinghouse Electric Co., Pittsburg, Pa.	A Sept. 7, 1888 M Dec. 4, 1888
SHELDON, SAMUEL, *A. M. Ph. D.*	Professor of Physics and Electrical Engineering, Polytechnic Institute, 170 State St., Brooklyn, N Y.	A Dec. 16, 1890 M Oct. 27, 1891
SHEPARD, WM. E.	Lincoln St. Ry. Co., Lincoln, Neb.	A Feb. 7, 1890 M Mar. 18, 1890
SLATER, HENRY B.	Manager and Sup't, The Canon City Electric Light and Power Co., Canon City Col.	A April 15, 1884 M Dec. 9, 1884
SMITH, JESSE M.	Consulting Electrical Engineer and Expert in Patent Causes, 36 Moffatt Block, Detroit, Mich.	A April 15, 1884 M June 26, 1891
SMITH, T. CARPENTER	Partner in firm of M. R. Muckle Jr. & Co., 212 Drexel Building. Philadelphia, Pa.	A Oct. 27, 1891 M Dec. 16, 1891
STANDFORD, WILLIAM	Ass't Sup't Telegraphs, Colonial Gov't, Cape Town, Cape of Good Hope, Africa.	A Oct. 4, 1887 M Dec. 6, 1887
STEBBINS, THEODORE	Electric Railway Inspector, Thomson-Houston Elec. Co, 620 Atlantic Ave., Boston, Mass.	A July 9, 1889 M June 17, 1890
STEINMETZ, CHARLES P.	(*Manager.*) Electrician, Osterheld & Eickemeyer, 124 Waverly Place. Yonkers, N. Y.	A Mar. 18, 1890 M April 21, 1891
STIERINGER, LUTHER	Electrical Expert, 1873 Lexington Ave., New York.	A June 8, 1887 M Nov, 1, 1887
TAINTOR, GILES	Assistant Electrician, N. E. Telephone and Telegraph Co, 7 Walnut St., Boston, Mass	A June 26, 1891 M Dec. 16, 1891
TALTAVALL, THOS. R.	Editor, *Electrical Age*, World Building, New York City.	A Jan. 20, 1891 M Oct 27, 1891
TERRY, CHARLES A.	Lawyer, Westinghouse Electric Co, Pittsburg, Pa.	A April 5, 1887 M May 17, 1887
THOMSON, PROF. ELIHU	(*Past President*). Electrician, Thomson Houston Electric Co., and Thomson Electric Welding Co., Lynn, Mass.	A April 15, 1884 M April 21, 1891
THOMPSON, EDWARD P.	Consulting Electrician and Patent Attorney in Electrical Cases, 5 Beekman St., New York.	A April 15, 1884 M Dec. 3, 1889
THURNAUER, ERNST	Manager, Thomson-Houston International Elec. Co, 7 Rue du Louvre, Paris, France.	A Oct. 14, 1887 M Dec. 6, 1887
TURNER, WILLIAM S.	Electrical Engineer, Woodbridge & Turner. 47 Times Building, New York.	A Dec. 7, 1886 M Oct. 2, 1888
UPTON, FRANCIS R.	General Manager. Edison Lamp Works. Harrison, N. J. Residence, 107 Day St., Orange, N. J.	A May 17, 1887 M Mar. 15, 1892

Name.	Address.	Date of Election.
VAIL, J. H.	Ass't Engineer in Chief, Edison General Electric Co., Edison Building, P. O. Box 3067, N. Y.	A June 8 1887 M Nov. 1, 1887
VANSIZE, WILLIAM B.	Solicitor of Patents, 44 Broad St., New York.	A April 15, 1884 M Oct. 21, 1884
WADDELL, MONTGOMERY	Engineer, The Waddell-Entz Electric Co., Bridgeport, Conn.	A Feb. 7, 1888 M May 1, 1888
WALKER, SYDNEY F.	Electrical Engineer, 195 Severn Road, Cardiff, Wales.	A June 2, 1885 M May 17, 1887
WALDO, DR. LEONARD	Electrical Engineer, The Aluminum Brass & Bronze Co., Bridgeport, Conn.	A June 5, 1888 M Dec. 4, 1888
WEAVER, W. D.	Hall Building, Troy, N. Y.	A May 17, 1887 M May 17, 1887
WEBB, HERBERT LAWS	(*Manager*) 26 West 34th Street, New York City.	A Oct. 21, 1890 M Dec. 16, 1890
WEEKS, EDWIN R.	General Manager, Kansas City Electric Light Co., National Bank of Kansas City Building. Kansas City, Mo.	A Sept. 6, 1887 M Nov. 1, 1887
WELLER, HARRY W.	Railroad Inspector, The Edison General Electric Co., Edison Building, Broad Street, New York City.	A Oct. 21, 1890 M Nov. 24, 1891
WESTON, EDWARD	(*Past President.*) Vice-President, Weston Electrical Instrument Co., 120 William St., and 645 High St., Newark, N. J.	A April 15, 1884 M Oct. 21, 1884
WETZLER, JOSEPH	Editor *Electrical Engineer*, 203 Broadway, N. Y.	A April 15, 1884 M Dec. 9, 1884
WHARTON, CHAS. J.	82 Bond St., London England.	A Jan. 3, 1888 M May 1, 1888
WHEELER, SCHUYLER S., [Life Member.]	*Sc.D.* President Crocker-Wheeler Electric Motor Co., 430-432 West Fourteenth St., Electrical Expert, Board of Electrical Control, 1266 Broadway, New York.	A June 2, 1885 M Sept. 1, 1885
WILKES, GILBERT	Edison General Electric Co., Edison Building, Box 3067, N. Y. City.	A Jan. 7, 1890 M Mar. 18, 1890
WILSON, CHARLES H.	General Superintendent, Chicago Telephone Co., 203 Washington Street, Chicago, Ill.	A Nov. 24, 1891 M Feb. 16, 1892
WILSON, FREMONT	Electrician, 293 Lenox (6) Ave., New York.	A Mar. 6, 1888 M June 5, 1888
WINCHESTER, A. E.	Designer of Steam Electrical Plants, Wilton, Conn.	A June 8, 1887 M Nov. 1, 1887
WOLCOTT, TOWNSEND	Consulting Electrician, 849 Greene Ave., Brooklyn, N. Y.	A Mar. 6, 1888 M Dec. 16, 1890
WOODBRIDGE, J. L.	Electrical Engineer, Woodbridge & Turner, 47 Times Building, New York,	A June 8, 1887 M Nov. 1, 1887
YOUNG, C. GRIFFITH	Superintendent and Electrician, Mount Morris Electric Co., Vandam and Greenwich Sts., New York City.	A Jan. 3, 1889 M April 21, 1891
ZETZSCHE, DR. CARL EDUARD,	Telegraph Engineer, Carlstrasse 8, II Dresden, N. Saxony.	A Nov. 1, 1887 M Jan. 3, 1888

Members, - - - 183.

ASSOCIATE MEMBERS.

Name.	Address.	Date of Election.
ABERNETHY, J. P.	Superintendent of Telegraph, 53 City Hall, Cleveland, O.	July 7, 1884
ABBOTT, ARTHUR V.	Mechanical Engineer, North Ave. Railway Co., Blackstone Building, Baltimore, Md.	Oct. 21, 1890
ALDEN, JAMES S.	Assistant Manager, with L. H. Alden, 486 River Drive, Passaic, N. J.	May 19, 1891
ALDRICH, WILLIAM S.	Associate in Mechanical Engineering in the Department of Electrical Engineering, Johns Hopkins University, Baltimore, Md.	Mar. 15, 1892
ALEXANDER, HARRY	Electrical Contractor, 126 Liberty and 340 W. 145th St., New York City.	April 21, 1891
ALEXANDER, P. H,	President, Alexander, Barney and Chapin, 20 Cortlandt St., New York City.	Dec. 16, 1890
ANDREWS, WM. S.	Supt. Construction Dept., Edison General Electric Co., Edison Building, Box 3067, New York.	Mar. 5, 1889
ANTHONY, WATSON G.	Electrician, 32½ Webster St., Newark, N. J.	Feb. 24, 1891
ATWOOD, GEORGE F.	Edison Laboratory, Orange, N. J.	Sept. 16, 1890
BADT, FRANCIS B.	Manager, Mining Dep't. T.-H. Electric Co., 6506 Lafayette Ave., Englewood, Ill.	April 19, 1892
BAILLARD, E. V.	Equitable Mfg. and Electric Co., 611 West 36th St. and 363 Manhattan Ave., New York.	Dec. 3, 1889
BARBERIE, E. T.	Electrician, Safety Insulated Wire Co., 234 W. 29th St., New York City.	Jan. 19, 1892
BARNARD, JOHN H.	General Manager, Asheville Street Railway Co., and Asheville Light and Power Co., Asheville, N. C.	June 26, 1891.
BARTON, ENOS M.	President Western Electric Co., 227 South Clinton St., Chicago, Ill.	July 12, 1887
BARRETT, JOHN A.	Electrical Engineer and Expert, 13 Park Row, New York City.	June 8, 1887
BATES, D. H.	The Bradstreet Co., 279 Broadway, New York City.	April 15, 1884
BATES, F. C.	Electrical Engineer, with Thomson-Houston Electric Co., Lynn, Mass.	Jan. 20, 1891
BAUER, W. F.	Constructionist, The Electrical Accumulator Co., 62 Steuben St., East Orange, N. J.	April 15, 1890
BEALS, PASCAL P.	Electrical Contractor and Agent for the Waddell-Entz Electric Co., 50 Terrace, Buffalo. N. Y.	May 17, 1892
BEATTIE, JOHN, JR.	Manager and Superintendent, The Beattie Battery, Zinc and Electric Co., Fall River, Mass	Sept. 6, 1887
BEDELL, FREDERICK	Graduate Student, Cornell University, 118 Elm St., Montclair, N. J.	April 21, 1891
BENBOW, WILLIAM C.	Care Thomson-Houston Electric Co., Atlanta, Ga.	Nov. 12, 1889

Name.	Address.	Date of Election.
BENNETT, J. C.	Electrician, Edison General Electric Co. Box 3067, 44 Broad St., New York.	Mar. 18, 1890
BERHGOLTZ, HERMAN	General Manager, The Wightman Elec. Mfg. Co., 4 Commonwealth Bldg., Scranton, Pa.	April 2, 1889
BERLINER, EMILE	Inventor, Columbia Road, between Fourteenth and Fifteenth Sts., Washington, D. C.	April 15, 1884
BERTHOLD, VICTOR M.	With T. D. Lockwood in Patent Department of American Bell Telephone Co., 16 Upton Street, Cambridgeport, Mass.	May 17, 1892
BISHOP, JAMES DRAPER	Electrical Expert, John A. Roeblings' Sons Co., 345 W. 34th St., New York City.	Dec. 16, 1891
BLACK, CHAS. N.	Brush Electric Co., Belden St. Cleveland, O.	Feb. 7, 1890
BLADES, HARRY H.	General Sup't., The Detroit Motor Co., 1343-55 Cass Ave., Detroit, Mich.	April 19, 1892
BLAKE, HENRY W.	The Street Railway Publishing Co., World Building, New York City.	Nov. 13, 1888
BLAKENEY, W. H.	Firm of Blakeney and Rennie, Mechanical and Electrical Engineers, 33 Bath St., Glasgow, Scotland.	Mar. 15, 1892
BLISS, DONALD M.	Electrician, The Canada Electric Co., Amherst, N. S.	Feb. 7, 1890
BLISS, WM. J. A.	820 Connecticut Ave., Washington, D. C.	Jan. 20, 1891
BLOOD, W. HENRY, JR.	The Franklin Electric Co., 535 Delaware St., Kansas City, Mo.	April 2, 1889
BOGART, A. LIVINGSTON	Electrical and Patent Expert, 22 Union Square, New York,	July 10, 1888
BOGUE, CHARLES J.	165 West Eighteenth St., New York,	Dec. 3, 1889
BOSSON, FREDERICK N.	Electrician, Calumet and Hecla Mining Co., Calumet, Mich.	May 17, 1892
BOTTOME, TURNER D.	Electrician and General Manager, White House Mills, Hoosick, N.Y.	April 21, 1891
BOTTOMLEY, HARRY	Electrical Engineer, 505 Exchange Bldg., Boston, Mass., 6 Farrar St., Lynn, Mass.	April 2. 1889
BOURNE, FRANK	Electrical Engineer, The Field Engineering Co., 143 Liberty St, New York City..	April 21, 1891
BOWMAN, FRED A.	Electrical Engineer, Royal Electric Co., 58 Wellington St., Montreal, P. Q.	May 19, 1891
BRACKETT, PROF. CYRUS F.	Princeton, N. J.	April 15, 1889
BRADDELL, ALFRED E.	Electrical Inspector, Underwriters' Association, Middle Dep't, 308 Walnut St., Philadelphia, Pa.	Sept. 1, 1890
BRADLEY, FRED. W.	Electrical Staff World's Columbian Exposition, 5556 Monroe Avenue, Chicago, Ill.	May 20, 1890
BRADY, PAUL T.	State Agent, Thomson-Houston Electric Co., Syracuse, N. Y.	July 12, 1887

Name.	Address.	Date of Election.
BRINER, C. J.	Vice-President, Central Electric Construction Co, 515 Walnut St., St. Louis, Mo.	April 2, 1889
BROPHY, WILLIAM	17 Egleston St., Jamaica Plain, Mass.	Mar. 5, 1889
BROWN, ALEX. S.	Electrical Engineer, 136 Liberty St., New York City.	Jan. 7, 1890
BROWN, ALFRED S.	Electrical Engineer, Western Union Telegraph Co., 195 Broadway, New York City.	Mar. 18, 1890
BROWN, CHARLES A.	Attorney, Firm of Barton & Brown, Attorneys and Counsellors, 1428 1430 Monadnock Bldg., Chicago, Ill.	July 12, 1887
BROWNING, HOWARD L.	(Present address unknown.)	Dec. 6, 1887
BUCKINGHAM, CHAS. L.	Patent Attorney, Western Union Telegraph Co., 195 Broadway, P. O Box 3393, New York.	April 15, 1884
BULKLEY, J. NORMAN	Thomson-Houston Electric Co., Lynn, Mass.	Oct. 21, 1890
BUNCE, THEODORE D., JR.	Battery Expert, The Consolidated Electric Storage Co., 477 No. Penna St., Indianapolis, Ind.	May 20, 1890
BURNS, ELMER Z.	Consulting Electrical Engineer, Niagara Falls, N. Y.	Feb. 7, 1890
BURTON, GEO. D.	President, Electrical Forging Co., 194 Washington St., Boston, Mass.	April 21, 1891
BUYS, BERT.	Electrician, Rutherford B. S. & C. Elec. Co., Rutherford, N. J.	Feb. 7, 1890
CALDWELL, EDWARD	Assistant Editor, *Electrical World*, 167 Times Building, New York City.	Jan. 20, 1891
CALDWELL, FORDYCE S.	Proprietor Western Electric Construction Co., 503 Delaware St., Kansas City, Mo. and 151 Henry St., Brooklyn, N. Y.	Sept. 22, 1891
CARROLL, DWIGHT F.	Instructor in Electrical Engineering, Lehigh University, South Bethlehem, Pa.	Mar. 15, 1892
CARTWRIGHT, FRED'K. G.	Electrical Engineer, and Agent Fort Wayne Electric Co., 35 New Montgomery St , San Francisco, Cal.	Sept. 22, 1891
CARTY, J J	Electrician, Metropolitan Telephone and Telegraph Co., 18 Cortlandt St., New York	April 15, 1890
CASE, WILLARD E.	6 Fort St., Auburn, N. Y.	Feb. 7, 1888
CASPER, LOUIS	Wheatstone Repeater Chief, Western Union Telegraph Co., Cheyenne, Wyoming.	April 21, 1891
CHAMBERLAIN, F. H.	Electrician. Metropolitan R. R. Co., 2411 P St., N. W. Washington, D. C.	June 17, 1890
CHANDLER, CHARLES F.	Professor of Chemistry, Columbia College, and Prof. of Chemistry and Physics, College of Physicians and Surgeons, New York City.	Jan. 20, 1891

Name.	Address.	Date of Election
CHENEY, FREDERICK A.	Sec'y, Treas'r and General Manager, The Elmira Illuminating Co., Elmira, N. Y.	Oct. 1, 1889
CHENEY, W. C.	Electrical Engineer, Willamette Falls Electric Co., Portland, Oregon.	Sept. 22, 1891
CHERMONT, ANTONIO LEITE,	Manager Telephone Co. of Para, Para, U. S. of Brazil, Care Herbst Bros, Box 1377, New York.	Mar. 18. 1890
CHILDS, W. H.	Bookkeeper for The Estey Organ Co., Brattleboro, Vt.	Sept. 6, 1887
CHINNOCK, C. E.	Edison General Electric Co., Edison Building, P. O. Box 3067, New York.	April 15, 1884
CHUBBUCK, H. EUGENE	Sec'y and Treas'r, The New Omaha Thomson-Houston Electric Co., Omaha, Neb.	Dec. 4, 1888
CHURCHILL, ARTHUR.	Engineering Dept., Schenectady Works, Edison General Elec Co., 23 Front St., Schenectady. N. Y.	April 15, 1890
CLEMENT, LEWIS M.	1013 Central Ave., Oakland, Cal.	April 21, 1891
CLEVELAND, WM. B.	Electrical Engineer, 309 Perry-Payne Building, Cleveland, O.	April 15, 1884
COBB, JOHN S.	Electrician, 136 Liberty St., New York.	June 17, 1890
COFFIN, CHAS. A.	Vice-President and Treasurer, Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	Dec. 6, 1887
COGSWELL, A. R.	Electrician and Superintendent, Halifax Illuminating and Motor Co. Ltd., 34 Bishop St., Halifax, N. S.	April 21, 1891
COLGATE, GEO. L.	General Manager, Roanoke Electric Light and Power Co., Roanoke, Va.	June 17, 1890
COLLEY, BENJAMIN W.	First Ass't. Superintendent The Commercial Cable Co, Hazel Hill, N. S.	Oct. 21, 1890
COLVILLE, FRANK C.	Electrician and Inventor. 1503 Seventh Ave., Oakland, Cal.	May 19, 1891
COMPTON, ALFRED G.	(*Manager.*) Professor of Physics, College of the City of New York, 17 Lexington Ave., New York.	Nov. 1, 1887
COOLIDGE, CHARLES A.	Sup't and Electrician, Northern Improvement Co., Centralia, Washington.	April 19, 1892
CORNELL, CHAS. L.	Electrical Engineer, Cornell Engineering Co., 45 Broadway, N. Y.	Feb. 7, 1890
CORY, CLARENCE L.	Professor of Electrical Engineering, Highland Park College, Des Moines, Ia.	April 19, 1892
CRAM, HENRY B.	Treasurer, Bernstein Electric Co., 620 Atlantic Ave., Boston, Mass.	June 26, 1891
CRANE, W. F. D.	H. W. Johns Manufacturing Co., 87 Maiden Lane, New York City, and 24 Halstead Pl., East Orange, N. J.	Feb. 7, 1888
CROSBY, OSCAR T.	(*Vice-President.*) General Manager Railway Department, Thomson-Houston Electric Co., 620 Atlantic Ave, Boston, Mass.	Mar. 18, 1890

Name.	Address.	Date of Election.
CUNTZ, JOHANNES H.	Assistant to Pres't Henry Morton, Stevens Institute of Technology, 137 Hudson St, Hoboken, N. J.	Mar. 5, 1889
CURTIS, CHAS. G.	63 Broadway, and 441 Park Ave., New York.	April 15, 1884
CUSHING, F. W.	General Western Agent, Day's Kerite Wire and Cables, 225 Dearborn St., Chicago, Ill.	Nov. 24, 1891
CUSHMAN, HOLBROOK	Instructor in Physics, Columbia College, 337 West Twenty-second St., New York.	June 5, 1888
DAME, FRANK L.	Engineer, The Northwest Thomson-Houston Electric Co., 114 James St., Seattle, Wash.	June 26, 1891
DANA, R. K.	Agent Washburn and Moen M'f'g Co., 16 Cliff St., New York.	April 15, 1884
DANIELL, FRANCIS G.	Care of Barry & McTighe, 52 and 54 William St., New York City.	Nov. 12, 1889
DAVENPORT, GEORGE W.	General Manager, Thomson-Houston International Electric Co., 620 Atlantic Ave., Boston, Mass.	June 4, 1889
DAVIDSON, EDW. C.	Patent Lawyer, Room 179, Times Bldg., New York.	Feb. 7, 1890
DAVIS, DELAMORE L.	Superintendent, Salem Electric Light & Power Co., 299 Lincoln Ave., Salem, O.	April 2, 1889
DAVIS, JOSEPH P.	Consulting Engineer, Care of Phœnix Construction Co., 115 W. 38th St., New York City.	April 15, 1884
DAVIS, MINOR M.	Ass't Electrician, Postal Telegraph Cable Co, 5 Dey St, New York.	April 6, 1886
DE KHOTINSKY, CAPT. ACHILLES,	Electrician, Germania Electric Co., 505 Exchange Bldg., Boston, and Marlboro, Mass.	Oct. 27, 1891
DELAND, FRED	Western Manager, The Electrical World. 465 The Rookery, Chicago Ill.	Feb. 16, 1892
DENTON, JAMES E.	Professor of Experimental Mechanics, Stevens Institute of Technology, Hoboken, N. J..	July 12, 1887
DESMOND, JERE. A.	Supt. and Electrician, Kingston Electric Light and Power Co, Kingston, N. Y.	Jan. 19, 1892
DICKERSON, E. N.	Attorney-at-Law, 15 Wall St., N. Y.	April 15, 1884
DION ALFRED A.	Manager, Ahearn & Soper, 72 Sparks Street, Ottawa, Ont.	Jan. 7, 1890
DOANE, S. EVERETT	Thomson-Houston Electric Co., Swampscott, Mass.	Aug. 6, 1889
DOBBIE, ROBERT S.	Edison General Elec. Co., 44 Broad St., N. Y. City. Box 3067.	Feb. 5 1889
DOREMUS, CHARLES A.	*M. D. Ph. D.* Chemist and Physicist, Bellevue Hospital Medical College, College of the City of New York and American Veterinary College, 92 Lexington Ave., New York.	July 7, 1884

Name.	Address.	Date of Election.
DRESSLER, CHARLES E.	Maker of Scientific and Electrical Apparatus, College of the City of New York, 17 Lexington Ave., New York City.	Dec. 16, 1890
DUNDERDALE, CLEAVELAND F.	Agent Westinghouse Electric Co., 146 Adams St., Chicago, Ill.	June 17, 1890
DUNN, GANO S.	Electrical Engineer, of the Crocker-Wheeler Electric Co., 430 West 14th St., Residence, 223 Central Park, West, New York City.	April 21, 1891
DURANT, GEO. F.	Vice-Pres't of Bell Telephone Co. of Mo., 322 Pine St., St. Louis, Mo.	April 15, 1884
EDWARDS, JAMES P.	Firm of W. A. & J. P. Edwards, Electrical Contractors and Engineers, Graniteville, S. C.	April 19. 1892
EKSTROM, AXEL	Electrician, Thomson-Houston Electric Co., Lynn, Mass.	June 17, 1890
ELEY, HARRIS H.	Electrical Workshop Sup't. W. C. & S. W. Telephone Co., 88 Colston St., Bristol, Eng.	Jan. 7, 1890
ELMER, WILLIAM, JR.	Under-graduate in Electrical Engineering, Princeton University, Princeton, N. J.	Mar. 18, 1890
EMMET, HERMAN L. R.	Publisher and Printer, 36 Cortlandt St., New York.	April 15, 1884
ENTZ, JUSTUS B.	Electrical Engineer, The Waddell-Entz Co., Bridgeport, Ct.	Jan. 7, 1890
ESSICK, SAMUEL V.	Electrician, The Essick Printing Tel. Co., 1 Broadway, New York City, and Yonkers, N. Y.	May 19, 1891
EVEREST, AUGUSTINE R.	Electrical Expert, Thomson Electric Welding Co., 89 State St., Boston, Mass.	May 19, 1891
FAY, THOMAS J.	39 King St., New York City.	June 26, 1891
FIELDING, FRANK E. [Life Member.]	Chemist and Assayer, Virginia City, Nev.	Sept. 6, 1887
FISCHER, GUSTAVE J.	Engineer for Tramway Construction, Public Works Department, Sydney, N. S. W.	Jan. 20. 1891
FISH, WALTER C.	Manager, Bernstein Electric Co., 620 Atlantic Ave., Boston, Mass.	June 26, 1891
FISKE, HENRY G.	Electrician, Croton Magnetic Iron Mines. 45 East Twenty-second Street, New York	Nov. 12, 1889
FISKE, J. P. B	Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	June 17, 1890
FLACK, J. DAY	Ass't Electrician in charge of Tests, Edison Lamp Works, Harrison, N. J.	Dec. 6, 1887
FLATHER, JOHN J.	Professor of Mechanical Engineering, Purdue University, Lafayette, Ind.	April 19, 1892
FLOOD, J. F.	Supt. Steubenville Street Railway Co., Steubenville, O.	Mar. 18, 1890
FLOY, HENRY	Graduate Student in Electrical Engineering, Cornell University, Barnes Hall, Ithaca, N. Y.	May 17, 1892

Name.	Address.	Date of Election.
FOOTE, ALLEN R.	Special Agent, Electrical Industries, U. S. Census, Takoma Park, D. C.	April 21, 1891
FOOTE, CHARLES W.	General Manager, The Nicholson Electric Hoist Co., 84 Champlain St., Cleveland, O.	Sept. 22, 1891
FOOTE, THOS. H.	153 John St., Bridgeport, Ct.	April 21, 1891
FORBES, FRANCIS	Lawyer, 137 Broadway. New York City.	Sept. 16, 1890
FRANCISCO, M. J.	President and General Manager, Rutland Electric Light Co., Rutland, Vt.	June 17, 1890
FREEDMAN, WILLIAM H.	Honorary Fellow in Electrical Engineering, Columbia College. 120 West 125th Street, New York.	Mar. 18, 1890
FRENCH, E. L.	Draughtsman, Mather Electric Co., Manchester, Conn.	Dec. 16, 1890
FULLER, LEVI K.	Vice-President, Estey Organ Co., Brattleboro, Vt.	Mar. 5, 1889
GAINES, J. D.	Second Ass't. Superintendent, The Commercial Cable Co., Hazel Hill, N. S.	Oct. 21, 1890
GANS, JOHN L.	Superintendent and Electrician, The Electric Company, Connellsville, Penn.	June 26, 1891
GILES, WALTER A	Engineer and Contractor, 416 Lewis Block, Pittsburg, Pa.	Nov. 1, 1887
GILLILAND, E. T.	Pelham Manor, N. Y.	April 15, 1884
GOLDMARK, CHAS. J.	473 Park Ave., New York.	June 5, 1888
GORTON, CHARLES	Civil Engineer, Belmont, N. Y.	Nov. 12 1889
GORDON, REGINALD	Assistant in Physics, Columbia College, New York City, Residence, 76 Park Ave.	Feb. 24, 1891
GRANER, ADOLF	Electrical Patent Agent, 529 North 35th St., Philadelphia, Pa.	Feb. 16, 1892
GREENBERG, ADOLPH G.	Salesman, Washburn & Moen M'f'g. Co., 16 Cliff St., New York City, 216½ 17th Street, Brooklyn, N. Y.	Mar. 17, 1891
GROSS, S. ROSS	Electrician, Tennessee Coal, Iron & R. R. Co., Ensley, Ala.	May 17, 1892
GROWER, GEORGE G.	Electrician and Chemist, Ansonia Brass and Copper Co., Ansonia, Conn.	Mar. 18, 1890
GRIFFIN, CAPT. EUGENE	Thomson-Houston Elec. Co., 295 Commonwealth Ave., Boston, Mass	Feb. 7, 1890
GRUNOW, WILLIAM JR.	Expert Mechanician and Manufacturer of Special Machinery and Instruments. 204 and 206 East 43d St., New York.	Jan. 19, 1892
GUTMANN, LUDWIG	Electrical Engineer, P. O. Box 560, Pittsburgh, Pa.,	Sept. 14, 1888
HADLEY, WARREN B.	Supt. Wiring Dept., Edison Electric Illuminating Co., 431 Fifth Ave., New York.	June 26, 1891

Name.	Address.	Date of Election.
HALL, EDWIN H.	Assistant Professor of Physics, Harvard College, Gorham St., Cambridge, Mass.	Sept. 3, 1889
HALL, JOHN L.	Manager, Western Union Telegraph Co., 300 Market St., Wilmington, Del.	Sept. 22, 1891
HALL, WILLIAM P.	President, The Hall Signal Co., 50 Broadway, New York City.	Sept. 16. 1890
HALSEY, WILLIAM B.	Inspector, Postal Telegraph-Cable Co., 94 Leonard St., New York.	Mar. 18, 1890
HAMILTON, WILLIAM H.	Dealer in Electrical Supplies, 100 State St., Albany, N. Y.	Sept. 22, 1891
HANCOCK, L. M.	Supt. of Construction, Western Electric Co., 22 Thames St., New York City.	May 19, 1891
HANDLEY, ARTHUR	Electrical Engineer, Electrical Engineering Co. of Ireland, Limited, 61 Dawson St., Dublin, Ireland.	Dec. 16, 1890
HARDING, H. McL.	Railway Dep't, Westinghouse Electric Co , Pittsburgh, Pa.	May 24, 1887
HARRINGTON, WALTER E.	Consulting Electric Railway Engineer, 2131 North 12th St., Philadelphia, Pa.	Mar. 17, 1891
HART, FRANCIS R.	Supt. of Construction, Mass. Electrical Engineering Co., 4 P. O. Square, Boston, Mass.	April 21, 1891
HASKINS, CARYL D.	Electrician, Thomson-Houston Electric Co., Lynn, Mass.	Mar. 18, 1890
HASSON, W. F. C.	Consulting Engineer, 104 Sutter St., San Francisco, Cal.	Mar. 18, 1890
HATZEL, J. C.	Electrical Engineer and Contractor, 114 Fifth Avenue, New York.	Sept. 3, 1889
HEALY, LOUIS W.	The Wightman Electric Co., 1205 Marion St , Scranton, Pa.	June 26, 1891
HEILMAN, DONALD B.	Jonestown, Pa.	Mar. 18, 1890
HEINRICH, RICHARD O.	Electrical Engineer, Weston Electrical Instrument Co., 114 William St., Newark, N. J.	Oct 1, 1889
HENRY, JOHN C.	Electrical Engineer, Westfield, N. J.	April 21, 1891
HENSHAW, FREDERICK V.	Assistant Electrician, The "C.& C." Electric Motor Co., 402 Greenwich St , New York.	Feb. 5, 1889
HERING, HERMANN S.	Johns Hopkins University, Baltimore, Md.	April 21, 1891
HERRICK, CHARLES H.	Manager and Electrical Engineer, Wright Electrical Engineering Co. Co., 196 Summer St., Boston, Mass.	April 21, 1891
HEWLETT, EDWARD M.	Electrical Engineer, Isolated Dept. Thomson-Houston Electric Co 65 Columbia Heights, Brooklyn, N. Y.	May 19. 1891
HIGGINS, EUGENE	Assistant Electrical Engineer, with Frank B. Rae, 302 Hammond Building, Detroit, Mich.	April 19, 1892
HILL, GEORGE	Chief Engineer and General Manager, Carrere and Hastings, 44 Broadway, New York City.	April 19, 1892

Name.	Address.	Date of Election.
HOCHHAUSEN, WILLIAM	Electrician, The Excelsior Electric Co., 196 Willoughby St., Brooklyn, N. Y.	April 15, 1884
HOFFMAN, SAMUEL V.	Post-graduate Student, Johns Hopkins University, Baltimore, Md.	Jan. 20, 1891
HOLCOMB, EUGENE R.	Engineering Dept., Edison Gen'l Elec. Co., Portland, Ore.	June 17, 1890
HOLMES, FRANKLIN S.	Electrical Engineer, with C. H. Davis, 120 Broadway, N. Y., 445a Macon St., Brooklyn, N. Y.	April 21, 1891
HOLT, MARMADUKE BURRELL.	Mining and Electrical Engineer, Box 1166, Denver, Col.	April 15, 1890
HOOPES, ARTHUR	Experimenter, Edison Laboratory, Orange, N. J.	April 19, 1892
HOPKINS, J. HERBERT	403 North 8th St., St. Louis, Mo.	April 2, 1889
HOSFORD, HENRY H.	Electrical Engineer, 84 and 86 Champlain St., Cleveland, O.	Sept. 22, 1891
HOWSON, HUBERT	Patent Lawyer, 38 Park Row, New York.	June 8, 1887
HUBRECHT, DR. H. F. R.	Director, Nederlandsche Bell Telephone Co., Amsterdam, Holland	Oct. 4, 1887
HUFF, S. W.	Manager, Electrical Department of Factory, Baxter Electric Motor Co., 2100 Druid Hill Ave., Baltimore, Md.	Nov. 24, 1891
HUMPHREYS, C. J. R.	Manager, Lawrence Gas Co., Lawrence, Mass	Sept. 6, 1887
IDELL, FRANK E.	Mechanical Engineer 41 Dey St., New York.	July 12, 1887
IHLDER, JOHN D.	Electrical Engineer, with Osterheld & Eickemeyer, Manuf'rs of Dynamos and Motors, Yonkers, N. Y.	Oct. 2, 1888
INSULL, SAMUEL	Electrical Manufacturer, Box 3067, New York.	Dec. 7, 1886
IVES, EDWARD B.	Lieutenant U. S. A., Electrical Engineer, 139th St. and Grand Boulevard, New York.	April 2, 1889
IZARD, E. M.	Electrical Engineer, The Electrical Engineering Co., 320 Dearborn St., Chicago, Ill.	Mar. 5, 1889
JACKSON, C. H.	President, United Electric Light and Power Co., Times Building, New York.	May 24, 1887
JAMES, JOHN N.	Electrician, Naval Observatory, Washington, D. C.	Feb. 16, 1892
JOHNSTON, A. LANGSTAFF	Civil and Consulting Engineer in the the General Construction of Electric Railways, 1105 E. Main St., Richmond Va.	April 21, 1891
JOHNSTON, W. J.	President, The W. J. Johnston Co., Ltd., Times Building, P. O. Box 3332, N. Y.	April 15, 1884
JONES, PROFESSOR F. R.	University of Tennessee, Knoxville, Tenn.	May 20, 1890
JUDSON, WM. PIERSON,	U. S. Civil Engineer, Oswego, N. Y.	June 8, 1887
KEEN, WILLIAM M. B. *M.D.*	85 Varick Street, New York City.	Sept. 16, 1890

Name.	Address.	Date of Election.
KELLOGG, JAMES W.	Assistant to District Engineer, Edison General Electric Co., 140 E. 27th St., New York.	June 26, 1891
KENNELLY, A. E.	(*Vice-President.*) Electrician, Edison Laboratory, Orange, N. J.	May 1, 1888
KIMBALL, A. S.	Professor of Physics, Worcester Polytechnic Institute, Worcester, Mass.	Sept. 3, 1889
KINNEY, H. A.	917-918 Monodnoc Building, Chicago, Ill.	Mar. 18, 1890
KREIDLER, W. A.	Editor and Publisher, *Western Electrician*, 6 Lakeside Building, Chicago, Ill.	Oct. 4, 1887
LAIN, DAVID E., *B. S.*	Electrical Engineer, Yonkers, N. Y.	Nov. 13, 1888
LAND, FRANK	624 Western Ave., Lynn, Mass.	Sept. 22, 1891
LAUDY, LOUIS H.	Assistant in Applied Chemistry, School of Mines, Columbia College, New York City, Residence, 239 West 52d St.	Feb. 24, 1891
LAW, MYRON D.	Manager Arc Light Dep't., Edison Machine Works, Schenectady, N. Y.	Feb. 7, 1888
LEDOUX, A. R.	Chemical Expert, 9 Cliff St., New York.	Dec. 7, 1886
LEE, JOHN C.	Chemist and Electrician, American Bell Telephone Co., Mountfort St., Longwood, Brookline, Mass.	Mar. 18, 1890
LEMP, HERMANN, JR.	Electrician, Thomson Electric Welding Co , Lynn, Mass.	April 2, 1889
LENZ, CHARLES OTTO	Draughtsman (Electrical), Edison General Electric Co., Box 3067, New York City.	Mar. 15, 1892
LEVY, ARTHUR B.	Assistant Engineer, Arc Light Dep't, Edison General Electric Co., 235 E. 50th St., N. Y. C.	Jan. 20, 1891
LEWIS, HENRY FREDERICK WILLIAM.	General Manager and Secretary of the Western Counties South Wales Telephone Co., England, 8 Meridian Road, Redland, Bristol, Eng.	Mar. 5, 1889
LIEBIG, GUSTAV A., JR.	Elec'l Testing Bureau, Johns Hopkins University, Baltimore, Md.	Mar. 6, 1888
LITTLE, FRANKLIN P.	Manager, F. P. Little & Co., 141 East Seneca St., Buffalo, N. Y.	May 17, 1892
LLOYD, ROBERT MCA.	Electrician of the Marion, N. J. Factory, United Electric Traction Traction Co., 2 W. 36th St., New York City.	Oct. 21, 1890
LOGAN, CHARLES H.	General Manager, Standard Electric Co., Detroit, Mich.	Nov. 18, 1890
LOOMIS, OSBORN P.	Electrician, Eureka Electric Co., 530 Nostrand Ave., Brooklyn, N.Y.	Sept. 16, 1890
LOVEJOY, J. R.	Electrical Engineer, Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	April 21, 1891
LOWREY, GROSVENOR P.	Lawyer, 1 Broad St., Residence 121 Madison Ave., New York.	Nov. 1, 1887
LOZIER, ROBERT T. F.	Electrical Expert, The Edison General Electric Co., Broad Street, Box 3067, New York.	May 20, 1890

Name.	Address.	Date of Election.
LUFKIN, HARVEY L.	General Agent, "C & C" Electric Motor Co., 404 Greenwich St., New York.	June 17, 1890
LUNDELL, ROBERT	Electrical Engineer, Interior Conduit and Insulation Co., 44 Broad St., New York. Residence 1309 Bedford Ave., Brooklyn, N. Y.	Feb. 7, 1890
LUQUER, THATCHER T. P.	Asst. in Surveying and Practical Mining, and Student in Electrical Engineering, Columbia College, N. Y., and Bedford, N. Y.	June 26, 1891
MACMULLAN, ROBERT HEATH.	Treasurer and General Manager, Brush Electric Lighting Co., Lafayette, Ind.	Sept. 22, 1891
MAC QUESTEN, W. D.	Electrical Engineer and Contractor, 15 Cortlandt St., New York.	April 15, 1890
MADDEN, O. E.	136 Liberty St., New York.	April 15, 1884
MAGER, LOUIS J.	Electrical Engineer, in charge of European Office of Thomson-Houston International Electric Co., Michaelisbrücke 1, Hamburg, Gy.	April 2, 1889
MALCOLM, PHILIP S.	Western Agent, Gibson Electric Co., Portland, Oregon.	Mar. 18, 1890
MANSFIELD, GEO. W.	Electrical Engineer, with Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	June 2, 1885
MARKS, LOUIS B.	Washington Carbon Co., Washington, Pa.	May 20, 1890
MARPLE, LUCIUS F.	Traveling Correspondent, *The Electrical Engineer*, 150 Broadway, New York City.	Sept. 22, 1891
MARTIN, A. J.	General Supt., West End Electric Co., 1310 N. 29th St., Philadelphia, Pa	Mar. 15 1892
MARTIN, F.	Electrical Engineer, Madison Square Garden Company, New York City.	Oct. 21, 1890
MARTIN, J.	Electrician, 16 Oak St., Newark, N. J.	Oct. 21, 1890
MARTIN, T. COMMERFORD	(*Past President.*) Editor, *The Electrical Engineer*, 203 Broadway, New York.	April 15, 1884
MARVIN, HARRY N.	Secretary and Expert, Marvin Electric Drill Co., Schenectady, N. Y.	April 19, 1892
MASON, AUGUSTE F.	General Manager, Simplex Electric Co, 620 Atlantic Avenue, Boston, Mass.	June 17, 1890
MASON, JAMES H.	Electrician and Supt., Mason Battery and Electrical Co., 120 Park Ave., Brooklyn, N. Y.	May 19, 1891
MAYER, GEORGE	Mechanical Draughtsman, Edison General Electric Co., 44 Broad St., New York City.	Dec 16, 1890
MCCARTHY, LAWRENCE A.	Western Union Telegraph Co., New York City, 1053 Bedford Ave., Brooklyn, N. Y.	Jan. 19, 1892

Name.	Address.	Date of Election.
McKIBBIN, GEORGE N.	Chemist and Electrician, Reed & McKibbin, Consulting Electrical Engineers and Contractors, 2 Wall St., New York.	June 8, 1887
McKINSTRY, J. P.	185 Seneca St., Cleveland, O.	April 15, 1884
McKISSICK, A. F.	Professor of Electrical Engineering, The A. & M. College of Ala., Auburn, Ala.	Feb. 16, 1892
McRAE AUSTIN LEE	Professor of Physics, Missouri School of Mines, Rolla, Mo.	May 17, 1892
MERCER, ANDREW G.	Treasurer and Electrician, Waterloo Electric Co., Waterloo, N. Y.	Sept. 3, 1889
MERRITT, ERNEST	Instructor in Physics, Cornell University, Ithaca, N. Y.	Sept. 16, 1890
METCALFE, GEORGE R.	Electrical Engineer, Associate Editor, *Electricity* 6 Park Place, and 404 W. 22d Streets, New York City.	April 19, 1892
MILLER, JOSEPH A.	Civil and Consulting Engineer, Providence, R. I.	Dec. 9, 1884
MILLER, WM. C.	General Manager, Watervliet Turnpike & R. R. Co., 3 South Hawk Street, Albany, N. Y.	Oct. 21, 1890
MINER, WILLARD M.	Electrician and Inventor, 89 East Second St., Plainfield, N. J.	July 12, 1887
MITCHELL, JOHN MURRAY	Lawyer, Box 3712, 45 Wall St., New York.	June 2, 1885
MITCHELL, SIDNEY Z.	Manager, Oregon, Washington and Idaho Agency, Edison General Electric Co., Fleischner Building, Portland, Or.	Nov. 12, 1889
MIX, EDGAR W.	Electrician, with Thomson-Houston International Electric Co., 7 Rue du Louvre, Paris, France.	Sept. 3, 1889
MOLERA, E. J.	Civil Engineer, 40 California St., San Francisco, Cal.	Jan. 16, 1892
MONELL, JOSEPH T.	With F. B. Crocker, 236 W. 22d Street, New York City.	Oct. 27, 1891
MOORE, JOHN J.	425 E. Twenty-fourth St, New York.	Nov. 12, 1889
MORDEY, WM MORRIS	Electrician, Brush Electrical Engineering Co, 34 Montserrat Road, Putney, London, Eng.	Sept. 22, 1891
MORRISON, J. FRANK	15 South St., Baltimore, Md.	April 15, 1884
MORSS, EVERETT.	Electrician, Simplex Electric Co., 297 Beacon St., Boston, Mass	Sept. 22, 1891
MORTON, HENRY, *Ph D*	President of Stevens Institute of Technology, Hoboken, N. J.	May 24, 1887
MOSES, DR. OTTO A.	Electrician, 1037 Fifth Ave., New York.	May 17, 1887
MOSS, GEO. W.	Station Manager, C. & S. A. Tel. Co., Tehuantepec, Mexico	Jan. 7, 1890
MOSSCROP, WM. A.	Electrical Engineer, 128 Oliver St., Boston Mass.	May 7, 1889
MYERS, GEO. FRANCIS	Electrical Engineer, Westinghouse Bldg. Penna Ave., and 9th St., Pittsburg, Pa.	June 17, 1890
NESMITH, S. D.	(Address unknown.)	Sept 16, 1890

Name.	Address.	Date of Election
NEWELL, ARTHUR J.	Electrical Engineer, R. T. Oakes & Co., 366 High St., Holyoke, Mass.	Mar. 18, 1890
NICHOLS, ARTHUR E.	Student in Electrical Engineering, Columbia College, 16 E. 35th St., New York City.	Mar 18, 1890
NUNN, RICHARD J., *M. D.*	Physician, 119½ York St., Savannah Ga.	July 12, 1887
OCKERSHAUSEN, H. A.	Electrical Engineer, 65 Madison Ave., Jersey City, N. J.	Sept. 6, 1887
O'DEA, M.	Electrician, University of Notre Dame, Notre Dame, Ind.	June 8, 1887
OTTEN, DR. JAN D.	Engineer, Thomson-Houston International Electric Co., Michaelsbrucke 1, Hamburg, Germany.	Nov. 18, 1890
OWENS, R. B.	Professor of Electrical Engineering, University of Nebraska, Lincoln, Neb.	June 17, 1890
PAGE, A. D.	Assistant Manager, Edison General Electric Co. Lamp Works, Harrison, N. J.	Jan. 19, 1892
PALMER, G. W., JR.	Address Unknown.	April 15, 1890
PARCELLE, ALBERT L.	Electrician and Inventor, 157 Washington St, Boston, Mass.	Dec. 16, 1891
PARKER, HERSCHEL C.	Assistant in Physics, Columbia College, 21 Fort Green Place, Brooklyn, N. Y.	April 19, 1892
PARSELL, HENRY V., JR.	31 East Twenty-first St., New York.	Nov. 12, 1889
PAUL, CHAS. M.	Electrician, 172 Remsen St., Brooklyn, N. Y.	May 7, 1889
PECK, EDWARD F.	General Sup't Citizens Electric Illuminating Co., Cor. Rockwell Place and DeKalb Ave., Brooklyn, N. Y.	May 20, 1890
PECK, SAMUEL C.	Electrician, Thomson-Houston Electric Co., 620 Atlantic Ave, Boston, Mass.	Sept 6, 1887
PEIRCE, WM. H.	Assistant Manager, Baltimore Smelting and Rolling Co., Keyser B'ld'g, German and Calvert Sts., Baltimore, Md.	Sept. 7, 1888
PERKINS, FRANK C.	209 Central Ave., Dunkirk, N. Y.	Oct. 21, 1890
PEROT, L. KNOWLES	Consulting Electrical Engineer, 308 Walnut St., Philadelphia, Pa.	Mar. 15, 1892
PERRY, NELSON W., E. M.,	Editor, *Electricity*, 6 Park Place, New York City, Residence, 40 Sidney Place, Brooklyn, N. Y.	May 17, 1892
PHILLIPS, EUGENE F.	M'f'r Insulated Electric Wire, Providence, R. I.	July 13, 1889
PIKE, CLAYTON W.	Instructor in Electrical Engineering University of Pa., Philadelphia, Pa.	Dec. 16, 1891
POOLE, CECIL P.	Contracting Electrical Engineer, 206–8 Eighth St. Lynchburg, Va.	Jan. 3, 1888
POOR, CHAS. LANE	Johns Hopkins University, Baltimore, Md.	Dec. 16, 1890
POPE, RALPH W.	Secretary to the American Institute of Electrical Engineers, 12 W. 31st St., Editor *Electric Power*, 136 Liberty St., New York. Residence, 570 Cherry St., Elizabeth, N. J.	June 2, 1885

Name.	Address	Date of Election.
POWELL, WILLIAM H.	Manchester, Conn.	June 17, 1890
PUPIN, DR. MICHAEL I.	(*Manager.*) Instructor in Mathematical Physics, Columbia College, 68 W. 72d St., New York City.	Mar. 18, 1890
PUTNAM, H. ST. CLAIR	Treasurer and Electrician, Thomson-Houston Carbon Co., Fremont, O.	Sept. 16, 1890
RAE, FRANK B.	Electrical Engineer, 27 and 28 Cleland Building, 31st St., Detroit, Mich.	April 15, 1884
RANDALL, JOHN E.	Incandescent Lamp Dep't, Thomson-Houston Electric Co., 325 Boston St., Lynn, Mass.	May 7, 1889
READ, ROBERT H.	Patent Attorney, with Electrical Review, 13 Park Row New York City.	Jan. 19, 1892
REED, CHAS. J.	Electrician, 224 High St., Orange, N. J.	Mar. 5, 1889
REED, HENRY A.	Secretary and Manager, Bishop Gutta-Percha Co., 422 East Twenty-fifth St., New York.	June 4, 1889
REID, THORBURN	Electrical Engineer, care Hubbard, Price & Co., Cotton Exchange Building, New York City.	Oct. 21, 1890
REILLY, JOHN C.	General Sup't, N.Y. & N. J. Tel. Co., 16 Smith St, Brooklyn, N. Y.	April 15, 1884
REINMANN, A. L.	Electrician, 510 W. 23d St., New York City.	June 8, 1887
REIST, H. G.	Electrical Engineer, Thomson-Houston Electric Co., 113 Franklin St., Lynn, Mass.	June 17, 1890
RIKER, ANDREW L.	Electrical Engineer, 15 East Fifty-fifth St., New York.	Nov. 1, 1887
ROBINSON, ALMON,	Draughtsman, Expert in Methods of Gearing, P. O. Box, 943, Lewiston, Me.	Sept. 6, 1887
ROLMAN, SAMUEL, JR.	Lieut. 1st Artillery, U. S. A., 10 Hopkins St., Providence, R. I.	Sept. 16, 1890
ROEBLING, FERDINAND W.	Manufacturer of Electrical Wires and Cables, Trenton, N. J.	June 8, 1887
ROESSLER, S. W.	Captain, U. S. A., U. S. Engineer Office, Memphis, Tenn.	Dec. 3, 1889
ROGERS, EDWARD H.	Patent Lawyer, firm of Pope and Rogers, 15 Wall St., New York. City.	Sept. 22, 1891
ROGERS, WINFIELD S.	Mechanical Engineer, Estate of F. W. Richardson, 2231 5th W. Troy, Troy, N. Y.	Sept. 3, 1889
ROSEBRUGH, THOMAS REEVE	Lecturer in Electrical Engineering, School of Practical Science, 107 Mutual St., Toronto, Ont.	June 26, 1891
ROSENBAUM, WM. A.	Electrical Patent Solicitor, Care of *The Electrical World*, Times Building, New York.	Jan. 3, 1889
ROSENBERG, E. M.	The Yale and Towne Manufacturing Co., Stamford, Conn. Residence, 784 Lexington Ave., N. Y. City.	Oct. 21, 1890
ROYCE, FRED W.	Electrician and Patent Solicitor, 1408 Pennsylvania Ave., Washington D. C.	April 15, 1884

Name.	Address.	Date of Election.
RUTHERFORD, W. M.	Toronto Construction and Electrical Supply Co., 63 Front Street, W. Toronto, Can	Sept. 22, 1891
RYAN, HARRIS J.	Professor of Electrical Engineering, Cornell University, Ithaca, N. Y.	Oct. 4, 1887
SACHS, JOSEPH	Electrician, The American Engineering Co., 109 World Building. Residence, 1839 Lexington Ave., New York City.	Mar. 15, 1892
SANBORN, FRANCIS N.	Manhattan Electric Lighting Co., 13 Spencer Place, Brooklyn, N. Y.	Nov. 24, 1891
SARGENT, W. D.	General Manager, N. Y. & N. J. Tel. Co., 16 Smith St., Brooklyn, N. Y.	April 15, 1884
SAWYER, FREDERICK J.	381 Boylston St., Boston, Mass.	June 8, 1887
SAXELBY, FREDERICK	Electrical Engineer, 416 Jersey St., Harrison, N. J.	June 5, 1888
SCHLOSSER, FRED. G.	Superintendent of Electric Dept., Laclede Gas Light Co., 1801 Wash St., St. Louis, Mo.	Sept. 22, 1891
SCHMID, ALBERT	Superintendent, Westinghouse Electric & Mfg. Co., Pittsburg, Pa.	Oct. 21 1890
SCHMIDT, FREDERICK	Managing Director, The Schmidt-Douglas Electric Co., L'td., 31 Blenheim Rd., Bradford, England.	Jan. 3, 1888
SCHMIDT, GIACOMO	Ass't General Manager, Richmond Light, Heat and Power Co., New Brighton, N Y.	April 21, 1891
SCOTT, CHARLES F.	Assistant Electrician, Westinghouse Electric and Mfg. Co., Pittsburg, Pa.	April 19, 1892
SEARING, LEWIS	Shepard & Searing, Mechanical and Electrical Engineers, 513 and 514 Mining Exchange, Denver, Colorado.	April 3, 1888
SEELY, J. A.	General Manager, Complete Construction Co., 10 Cortlandt St., New York.	April 15, 1884
SERRELL, LEMUEL WM.	Mechanical and Electrical Engineer, 10 Wall St., New York.	Nov. 1, 1887
SHAW, EDWIN C.	General Superintendent, Thomson-Houston E. L. and P. Co., 40 Court St., Buffalo, N. Y.	May 17, 1892
SHAW, GEORGE B.	General Manager, National Electric Mfg. Co., Eau Claire, Wis.	April 15, 1890
SHEBLE, FRANKLIN	Electrical Engineer, Thomson-Houston Electric Co., Lynn, Mass.	Oct. 21, 1890
SHEEHY, ROBERT J.	Electrical Engineer, Equitable Mfg. and Electric Co., 24 West St. and 101 W. 76th St., New York City.	April 21, 1891
SHEEHAN, WILLIAM M.	Manager and Electrician, Newburgh Electric Light & Power Co., 65 Montgomery St., Newburgh, N.Y.	Sept. 3, 1889
SHEPARDSON, GEORGE D.	Dep't. of Electrical Engineering, University of Minnesota, Minneapolis, Minn.	April 21, 1891
SINCLAIR, H. A.	Electrical Engineer. The Tucker Electric Co., 950 Bedford Ave., Brooklyn, N. Y.	June 17, 1890

Name.	Address.	Date of Election.
SISE, CHARLES F.	Vice-President and Managing Director, Bell Telephone Co., of Canada, and Canadian Telephone Co., Ltd., P. O. Box 1918, Montreal, Canada.	June 8, 1887
SMITH, FREDERICK H.	Civil Engineer. 227 East German St., Baltimore, Md.	Nov. 12, 1889
SMITH, GERRITT	Circuit Electrician, W. U. Tel Co. 16 Broad St., New York	April 15, 1884
SMITH, HAROLD BABBITT.	Adj. Prof. in charge of Electrical Engr'g Dept., Arkansas State University, Fayetteville, Ark.	Nov. 24, 1891
SMITH, J. ELLIOT	Superintendent Fire Alarm Telegraph, 157 East Sixty-seventh St., New York.	April 15, 1884
SMITH, OBERLIN	President and Mechanical Engineer, Ferracute Machine Co., Lochwold, Bridgeton, N. J.	May 19, 1891
SMITH, T. JARRARD	Manager Electrical Dep't., The E. S Greeley & Co., 5 and 7 Dey St., New York City.	April 19, 1892
SOUZA, CARLOS MONTEIRO e	Rio de Janeiro, Brazil	Sept. 6, 1887
SPAULDING, HOLLON C.	P. O. Box 454, Exeter, N. H.	April 21, 1891
SPERRY, ELMER A.	Electrical Engineer, Sperry Electric Mining Machine Co., 39th St. and Stewart Ave., Chicago, Ill.	April 19, 1892
SPICER, CHAS. W. W.	136 W. 21st Street, New York City.	Nov. 12, 1889
SPIKE, CLARENCE J.	Halifax, N. S.	Mar. 18, 1890
SPRAGUE, FRANK J.	(*President.*) Electrical Engineer and Inventor, 182 West End Ave., Firm of Sprague, Duncan & Hutchinson, 15 Wall St., New York City.	May 24, 1887
SPRUSON, WILFRED J.	Member of the firm of Hepburn & Spruson, Consulting Engineers and Electricians, 169 King St., Sydney, Australia.	Dec. 16, 1890
SQUIER, GEORGE O.	Lieut. U. S. A., Student of Physics, Box 243, Johns Hopkins University, Baltimore, Md.,	May 19, 1891
STADELMAN, WM. A.	Vice-Prest. and Chief Engineer, Equitable Engineering and Construction Co., Drexel Building, Philadelphia, Pa.	Feb. 7, 1890
STANLEY, WILLIAM, JR.	Electrician, Pittsfield, Mass.	Dec. 6, 1887
STEARNS, CHARLES K.	Sup't of Construction, N. W. Thomson-Houston Electric Co., 403 Sibley St., St. Paul, Minn.	Aug. 6, 1889
STILLWELL, LEWIS B.	Electrical Engineer, Westinghouse Electric and M'f'g Co., Pittsburg, Pa.	April 19, 1892
STOCKBRIDGE, GEO. H.	Patent Attorney, and Editor *Electric Power* 136 Liberty St., New York.	May 24, 1887
STOCKLY, GEO. W.	President, Brush Electric Co., Cleveland, O. Lakewood, N. J	April 15, 1884
STONE, CHARLES A.	Manager with E. S. Webster, Mass. Electrical Engineering Co., 4 P. O. Square Boston, Mass.	May 19, 1891

Name	Address	Date of Election.
STRONG, FREDERICK G.	Electrician, Midland Electric Co., 1616 Seventeenth St., Denver Colo.	Oct. 27, 1891
STUART, OTIS K.	Agent, Germania Electric Co., Room 21, City Trust Building, Philadelphia, Pa.	June 4, 1889
STUMP, CLARENCE E.	Vice-President and Business Manager, Street Railway Publishing Co., World Building, New York.	May 17, 1887
SULLIVAN, M. C.	Electrical Engineer, Agent, The New Process Raw Hide Co., 136 Liberty St., New York City.	Dec. 16 1890
SUMMERS, LELAND L.	Electrician, Postal Telegraph Co., 211 Phœnix Building Chicago, Ill.	Feb. 16, 1892
SWEET, HENRY N.	Chief of Patent Bureau, Thomson Electric Welding Co., 89 State St., Boston, Mass.	May 20, 1890
TABER, ROBERT B.	Gas Engineer, Special Agent Thomson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.	Sept. 16, 1890
TAYLOR, CHARLES	Metallurgist, U. S. Assay Office, 30 Wall St., New York.	Nov. 1, 1887
TEMPLE, WILLIAM CHASE	Mechanical and Electrical Engineer, Lewis Block, P. O. Box 800 Pittsburgh, Pa.	May 3, 1887
TESLA, NIKOLA	(*Vice-President.*) Electrical Engineer and Inventor, The Gerlach, 55 West 27th St., New York.	June 5, 1888
THOMPSON, ALEXANDER	[Address unknown.]	April 21, 1891
THOMPSON, WILLIAM GEO.	MACNEILL, Resident Engineer, Sault Ste Marie Canal, Sault Ste. Marie, Ontario.	July 12, 1887
TISCHENDOERFER, FRED W.	Electrical Engineer, Eickemeyer & Osterheld M'f'g. Co., Yonkers, N. Y.	April 19, 1892
TOBEY, WILLIAM BOARDMAN	The Stanley Laboratory Co., Pittsfield, Mass.	Sept. 16, 1890
TOWNSEND, HENRY C.	Attorney and Expert in Electrical Cases, 5 Beekman St., New York.	July 10, 1888
TREGONING, JOHN	32 Belmont Ave., Providence, R. I.	April 2, 1889
TROTT, A. H. HARDY [Life Member.]	Electrical Expert, with Thomson-Houston Electric Co., Lynn. Mass.	Jan. 20, 1891
TUTTLE, GEORGE W.	Storekeeper, Sawyer-Man Electric Co., 510 West 23d St., New York City.	Mar. 17, 1891
UEBELACKER, CHAS. F.	Brush Electric Co., and 1299 Euclid Ave., Cleveland Ohio.	Feb 7, 1890
UEHLING, T. A.	179 Sawtell Ave., Cleveland, O.	May 19, 1891
UHLENHAUT, FRITZ, JR.	Philadelphia, Pa.	May 7, 1889
VAIL, THEO. N.	18 Cortlandt St., New York.	April 15, 1884
VAN BRUNT, WALTER	Manager, Duluth Telephone Co., Duluth, Minn.	Sept. 6, 1887
VANCE, A. ST. CLAIR	General Superintendent, The H. Ward Leonard & Co., 136 Liberty Street, New York City.	April 2, 1889

Name.	Address.	Date of Election.
VANDERGRIFT, JAMES A.	Assistant Supt. and Electrician, Sawyer-Man Electric Co., 534 W. 23d St., New York City.	Nov. 24, 1891
VAN TRUMP, C. REGINALD	Wilmington City Electric Co., Wilmington, Del.	Feb. 5, 1889
VAN VALKENBURGH, F. S.	906 Second St., Seattle, Wash.	June 5, 1886
VAN VLECK, FRANK	Executive Engineer, Pacific Railway Co., Los Angeles, Cal.	Nov. 16, 1886
VAN WYCK, PHILIP V. R., JR.	36 W. 12th St., Room 13, 18 Cortlandt St., New York City.	April 21, 1891
VARLEY, RICHARD, JR.	Electrician, Okonite Insulated Wire Co., Passaic, N. J.	Mar. 18, 1890
VERLEY, HORACE S. L.	With Dr. Wm. E. Geyer, as Laboratory Assistant, Stevens Institute, Hoboken, N. J.	May 17, 1892
VIDUARRE, JOSE	Dealer in Electrical Supplies, Ponce, Porto Rico.	Sept. 6, 1887
WACKER, GEORGE G.	Electric Organs, 3644 Third Ave., New York.	Sept. 6, 1887
WALLACE, WILLIAM	Wire Manufacturer, Ansonia, Conn.	April 15, 1884
WALTER, HENRY E.	3 Princes Mansions, Victoria St., London, Eng.	April 2, 1889
WARDELL, GEORGE P.	19 Cedar St., Newark, N. J.	Nov 12, 1889
WARING, RICHARD S.	Standard Underground Cable Co., 61 Westinghouse Bldg., Pittsburg, Pa.	April 15. 1884
WARING, JOHN	Consulting Electrician, The Perkins Electric Lamp Co., Manchester, Conn.	Dec. 16, 1890
WASON, CHAS. W.	Electrical Engineer, East Cleveland R. R. Co., 1154 Euclid Ave., Cleveland, O.	May 19, 1891
WATERHOUSE, FRANK G.	Room 6, No. 302 Asylum St., Hartford, Conn.	Sept. 6 1887
WATERHOUSE, LAWRENCE MAXWELL,	Consulting and Practical Electrical Engineer, 16 St. Michael's Place, Brighton, Eng.	April 19, 1892
WATERS, EDWARD G.	Electrical Engineer, Thomson-Houston Electric Light Co., German National Bank Building, Pittsburg, Pa.	Mar. 18, 1890
WATSON, ROBERT	The Elektron M'f'g. Co., 89 Liberty St., New York City.	Oct. 21, 1890
WATTS, H. FRANKLIN.	Electrical Engineer, 633 Chapel St., Schenectady, N. Y.	May 20, 1890
WEBSTER, DR. ARTHUR G.	Docent in Physics, Clark University, Worcester, Mass.	Jan. 19, 1892
WEBSTER, EDWIN S.	Mass. Electric Engineering Co., 4 P. O. Square, Boston, Mass.	April 21, 1891
WESSELS, EDWARD J.	New York Agent, The Short Electric Railway Co., 35 Wall St., New York City.	Mar. 15, 1892
WELLES, FRANCIS R,	Manufacturer, Bell Telephone Manufacturing Co., Antwerp, Belgium	Sept. 6, 1887
WHITE, GEO. MONTAGU	Agent for West Indies, Thomson-Houston International Electric Co., Kingston, Jamaica, W. I.	Sept. 22, 1891

WHITE, H. C.	Manager, Phœnix Iron Works Co., 15 Cortlandt St., New York.	April 15, 1884
WHITE, J. G.	J. G. White & Co., Electrical Engineers and Contractors, 29 Broadway, New York City.	April 2, 1889
WHITE, WILL F.	Electrical Engineer, Sec'y and Treas. Western Engineering Co., 415 So. 15th St., Omaha, Neb.	Feb. 7, 1890
WHITMORE, W. G.	Electrical Engineer, Edison General Electric Co., Edison Building, Box 3067, New York City.	Mar. 18, 1890
WHITNEY, HENRY M. [Life Member.]	President, West End Street Railway Co., 81 Milk St., Boston, Mass.	July 12, 1887
WIGHTMAN, MERLE J.	Vice-President and Electrician, The Wightman Elec. Mfg. Co., 4 Commonwealth Bldg., Scranton, Pa.	Mar. 5, 1889
WILEY, WM. H.	Scientific Expert, 53 East 10th St., New York.	Feb. 7, 1888
WILLIAMS, ARTHUR S.	53 Devonshire St., Boston, Mass.	Nov. 24, 1891
WILLIAMS, CHARLES, JR.	Electrician, 100 Sudbury St., Boston, Mass.	April 15, 1884
WILLIAMS, JAMES B. *M. D.*	44 Broadway, Room 60, New York.	Sept. 7, 1888
WILLIAMS, WILLIAM PLUMB	Electrical Engineer, Nicholson Electric Hoisting Company, Box 147, Cleveland, Ohio.	Jan. 19, 1892
WILLYOUNG, ELMER G.	Electrician, James W. Queen & Co., 924 Chestnut Street, Philadelphia, Pa.	Nov. 24, 1891
WILSON, HARRY C.	Supt. of P. O. Telegraph with the Government, Kingston, Jamaica, West Indies.	Jan. 19, 1892
WINKLER, CHARLES F.	Electrician, Troy Electric Dynamo Co., 4 Park Ave., Troy, N. Y.	Sept. 3, 1889
WINSLOW, I. E.	Electric Railway Engineer, Thomson Houston Electric Co., address, 458 Produce Exchange, New York.	Nov 12, 1889
WINTRINGHAM, J. P.	Theorist, 36 Pine St., New York.	May 7, 1889
WIRT, CHARLES.	(*Manager.*) Electrical Engineer of the Electrical Supply Co., 102-104 Michigan Ave., Chicago, Ill.	Sept. 8, 1888
WIRT, HERBERT C.	Electrician, Marine Dept. Thomson-Houston Electric Co., 12 Millmont St., Roxbury, Mass.	June 26, 1891
WOLVERTON, B. C.	Electrician, N. Y. & Pa. Telephone & Telegraph Co., Elmira, N. Y.	Mar. 18, 1890
WOOD, E. J.	Consulting Engineer and Contractor, 243 Broadway, New York.	July 12, 1887
WOODRUFF, H. O.	Manager, Sioux City Electric Co., Sioux City, Iowa.	Oct. 2, 1888
WOODWARD, FRANCKE L.	Student in Electricity, 49 Grand St., Albany, N. Y.	June 26, 1891
WOOLF, ALBERT E.	Electrician and Inventor, Woolf Electrical Co., 110 Pearl St. and 864 Lexington Ave., New York City.	Sept. 16, 1890
WRIGHT, JOHN D.	510 5th Ave., New York City.	Oct. 21, 1890

WURTS, ALEXANDER JAY,	Electrical Expert, Westinghouse Electric & Mfg. Co., Pittsburg, Pa.	April 19, 1892
YOUNG, ALDEN M.	Contractor for Organization and Complete Equipment of Electric Lighting Plants, 101 Bank St., Waterbury, Conn.	Sept. 6, 1887
ZALINSKI, EDMUND L.	Captain of Artillery, U. S. A., Care of War Dept., Washington, D. C.	May 17, 1887

Associate Members, - - - 435.

OFFICIAL STENOGRAPHER.

RYAN, RICHARD W., 300 Mulberry St., New York City.

SUMMARY.

Honorary Members, - - - - - - - - -	6
Members, - - - - - - - - - - - -	183
Associate Members. - - - - - - - - -	435
Total - - - - -	624